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CODE-BOOK
OF
GYMNASTIC EXERCISES.



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CODE-BOOK
OF
GYMNASTIC EXERCISES
BY
LUDWIG PURITZ

TRANSLATED BY
O. KNOFE AND J. W. MACQUEEN
MEMBERS OF THE GERMAN GYMNASTIC SOCIETY OF LONDON.

SECOND EDITION.

WITH 275 WOODCUT ILLUSTRATIONS.

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PREFACE.

It has ever been an acknowledged fact that the English people are inborn sportsmen, and are greatly addicted to all outdoor exercises. That this is really a fact is fully shewn by the vast number of young men of all classes and grades of society who indulge in what may briefly be described as "*Athletic Sports.*" These sports, however, are generally confined to the spring and summer months; and when the cold and inclement weather, which usually accompanies an English winter, approaches, with its fogs and other disagreeable attendants, a general and perhaps not unnatural reaction sets in. That there are outdoor and therefore healthy sports during the winter season cannot, of course, be denied; but, still, a regular course of athletics is not often pursued. It may well cause surprise, therefore, that so little attention has been paid to Gymnastics, pure and simple; for by its means the exercise

of the summer months could be continued during the winter. That this has not been done is the more remarkable when one recognizes the vast strides which have been made in this direction on the continent. This observation can be applied more particularly to Germany, where gymnastics may well be said to have developed into an important item in the every-day life of the people. The advantages which accrue from a steady and regular course of gymnastic exercises are too self-evident to require recapitulation here; and that these are fully recognized by those engaged in a town life is amply shewn by the development of gymnastic societies in many of the larger towns. The art of gymnastics, however, must be considered as yet in its infancy in this country, and not sufficiently advanced to have a voice and language of its own. It is with the object of affording some help in this direction to the various gymnastic societies in England, that the present volume is issued.

Foremost among the gymnastic societies at present established in England must be reckoned The German Gymnastic Society of London. Of that body the translators of this book have for

many years been active members, and have thus been able to enjoy the many benefits to be derived from the tuition of the well known Roman von Schweizer, the director of exercises of that society. It was in the exercise of their duties as leaders of sections in this society, that the idea first presented itself of issuing the present volume to English gymnasts. They found that there practically existed no definite set of expressions by which they could describe the various exercises in the English language, and yet be well understood by the members of their squads, or even by one another, and that there was no handy collection of exercises written in English. Mr. E. G. Ravenstein, a well known member and for some time President of the German Gymnastic Society, has written a first class book upon gymnastics, certainly one of the best that exist in the English tongue. It contains a full description of nearly all classes of gymnastic exercises; but the translators of this book, in their capacity as Leaders, found that a Code-Book of Exercises in a handy and compact form, at the same time couched in language easily understood, and admitting of its being referred to at the

Gymnasium for choosing suitable exercises for the various sections, was necessary for this purpose in addition to the excellent book of Mr. Ravenstein. They knew of several German Code-Books answering this description, all of them written in language more or less free from technicality; and of this number they thought that an English translation of Herr Ludwig Puritz' "Merkbüchlein für Vorturner" would be of the greatest use to their brother leaders, from its rich collection of exercises and its comparative brevity. This work was accordingly chosen, and the present edition must therefore be looked upon as a free translation of Herr Puritz's book. As far as possible the expressions and explanations employed are those which are to some extent already understood by English gymnasts. It was found exceedingly difficult to describe the exercises without a certain amount of technicality, but as far as possible this has been avoided. In many instances the translators, for the sake of brevity, have taken slight liberties with the Queen's English, and made use of words that are simply literal translations of German words. Amongst these may be reckoned "Back-rest," "Cross-seat," &c.,

but in all cases they contain within themselves a key to their meaning, and cannot be looked upon as being too technical or incomprehensible to even a beginner, the translators having been fully impressed with the importance of simplicity of language. In conjunction with the text, the admirable woodcuts, which are those of the original German edition, will be found most useful. The artist evidently had a good knowledge of gymnastics himself, as his figures not only exhibit the exercises plainly, but at the same time show to perfection the best style of holding the body and limbs. All those who wish to excel in good style of execution in their exercises, cannot do better than copy that of these little gymnasts.

The translators present their sincere thanks to Herr Puritz for the permission so kindly given to them to translate his really capital Code-Book, and they feel sure that if their work aids the cause of gymnastics in England, their labour will be sufficiently rewarded.

A FEW WORDS TO LEADERS
FOR
THEIR GUIDANCE IN CONDUCTING THEIR
SECTIONS.

The duties of a leader in a Gymnasium entail a certain amount of work and responsibility, and should be undertaken as a labor of love, so that he is heart and soul in his work. He requires in the first place plenty of tact, and should maintain a friendly relationship with all the members of his section, at the same time striving to be in behaviour and other respects an example to them. He should be neither their master nor their servant, but their friend and teacher combined. As such he is answerable for them, and they, on their side, should willingly follow his commands upon all points which appertain to the maintenance of order and the performance of the exercises, as in following his directions and advice, they evince their appreciation of his exertions.

The following remarks are intended for the guidance of leaders in the teaching of their sections.

First of all, the leader should prepare himself before the lesson, so that he can give his section suitable exercises, not too easy nor yet too difficult. When he has settled which group of exercises he will take for the lesson, he must keep clearly before his mind the whole of the component parts of that group, the chief exercises in their different parts, in their easier and more difficult forms, their preliminary movements, variations, and finally even combinations with other exercises. The illustrations given to each group will enable him to fully study and consider the various exercises at home, although they will not render a trial at the gymnasium altogether unnecessary. The preliminary exercises for beginners are mostly marked off by a line from the other exercises of the same group, and it is hoped that this plan will materially help the leader. Seeing that the Code-Book gives enough and to spare of different exercises in each group, the leader may take it with him to refresh his memory; but it would be better still to place on paper a note of the exercises which he may consider most suitable for his class, and take this with him to the gymnasium in place of the book. Adherence to this for a time will gradually practise the memory of the leader, and he will soon be able to dispense entirely with written notes. In the execution of the exercises

he must take care that he does not perform upon one side only, any exercise, which from its nature, can be done upon the left as well as upon the right.

In order to gain space, a two-sided exercise is seldom mentioned twice in the Code-Book. Very often the exercise contains not merely two, but four or even more forms. When, for example, amongst the Jumping Exercises II a, 4, it says "*Jump sideways with a $\frac{1}{4}$ or $\frac{1}{2}$ turn,*" eight forms of execution are comprehended. For instance, a jump sideways over rope with right side next to rope may be executed with

1. $\frac{1}{4}$ right turn,
2. $\frac{1}{4}$ left turn,
3. $\frac{1}{2}$ right turn,
4. $\frac{1}{2}$ left turn,

and then again with left side next to rope as follows:

5. $\frac{1}{4}$ left turn,
6. $\frac{1}{4}$ right turn,
7. $\frac{1}{2}$ left turn,
8. $\frac{1}{2}$ right turn.

It is of advantage to cultivate the habit of practising all double-sided exercises, firstly, as a rule, to the right, that is to say with the right arm, right foot, to the right side with left turn, and then afterwards to the left, and not commence sometimes right and sometimes left, unless there be some special reason for so doing. In this way time will be saved. If the exercises appear to hinge one upon another, it

is advisable to practise the whole set first to the right, then to go back to the beginning and to practise them to the left.

2. Before he commences the practice, the leader should always closely and carefully examine the apparatus which is to be used, and satisfy himself that it is in good condition in every respect, that it is in its correct position and possesses sufficient firmness. Before he has made a complete examination of the apparatus, he should not permit any one to practise upon it. If any fault which he may find in it cannot be repaired upon the spot, he should put off the intended practice rather than run the risk of an accident.

3. He should arrange the order of his pupils according to their skill and strength. The one who immediately follows him should always be the best gymnast of the squad, capable of easily catching the idea of the exercise. At the same time, the last should not be the worst, because if so, the following on to a new form of an exercise will not appear quite clear. The order once arranged should be strictly maintained, at all events until a change of apparatus has taken place, so that no pupil enters or absents himself from the squad, omits or repeats an exercise, or requires to be called upon, when his turn comes round. It is advisable that the pupils should be accustomed to arrange themselves in and maintain a straight line when waiting

their turn, as this prevents crowding and other inconveniences.

4. In most cases, the leader, before showing an exercise, ought to mention its name or character and then execute it as well as he can, both in style and accuracy, reserving until afterwards any remarks regarding details. In cases where mistakes are made by any of the pupils even after illustration and description, it is advisable that the leader should repeat the exercise, instead of relying on another verbal description. Instead of losing time with easy exercises with which the squad is already well acquainted, he should proceed by proper graduation from the easy to the more difficult forms of each group, at the same time not omitting those exercises which help to improve the suppleness of the limbs, nor those which prepare the pupil for more intricate movements. He should also repeat, either unaltered or with some slight variation, those exercises which have not been quite fully mastered, and he should neither expect nor require at first too exact an execution of the exercises. Should the squad, notwithstanding great willingness upon their part be still unable to completely master any group of exercises, it is for the leader to recognize his error and choose an easier group.

5. When assisting a pupil, the leader should pay more attention to the prevention of accident than to the execution of the exercise itself, more especially if such exercise be one that

could not be executed by the pupil, if he were unassisted.

6. A really conscientious leader should at the end of the lesson make a note of what he has done and to what point of the group he has brought his squad, principally for his own guidance at the next lesson upon the same instrument.

7. Above all, the leader should not consider himself bound down slavishly to the exercises and groups given to him, which are only meant as an aid for him to become a real master of the art of gymnastics. Not only should a leader be able to carry out and explain in a clear and concise manner the exercises which are here laid down, but he should be able to arrange combinations of the various sets.

THE BALANCING BEAM.

The apparatus consists of a round beam (or square for the less experienced gymnasts) about one foot thick and four to eight yards long, resting on two supports and capable of being raised at will up to three feet in height.

It must be firmly fixed.

As these exercises consist of remaining in a balancing position on the beam for a certain length of time, it is best that they be made at the command of the leader, who can thus exercise his judgment as to the duration of each exercise. He can allow one or more to practise at a time and need not strictly adhere to the exact rotation of the following exercises, but repeat any single movement as may be desirable.

I.

The beam to be placed one foot from the ground.

a.

- 1) 1. 2. — Face side of beam and step on with right foot first to side-stand on beam. In balancing exercises the feet should not be turned outwards to any great extent;
- 2) 3. 4. 5. 6. — Raise leg smartly forwards;
- 3) 7. 8. — Raise heel and kick thigh, without bringing knee forward; — 9. 10. 11. 12. — Same movements, catching hold of

- ngle; — (9. 10. 11. 12. — Same movements with knee raised forwards);
- 4) 13. 14. — Sink to squatting position and recover;
 - 5) 15 to 22. — Travel sideways along top of beam without crossing feet;
 - 6) 23 to 25. — Kneel on one knee, then on both and jump off beam from kneeling position; — 23 to 26. — Carry free leg from one side of beam to the other and jump off.

b.

- 1) 1. 2. — Face side of beam and step on with left foot first;
- 2) 3. 4. 5. 6. — Raise leg smartly backwards;
- 3) 7. 8. — Raise knee to chest; 9. 10. 11. 12. — Same, hands clasping shin;
- 4) 13. 14. — Bend body forward, passing hands behind thighs;
- 5) 15 to 22. — Travel sideways along top of beam, one foot crossing the other, either in front or behind;
- 6) 23 to 25. — Kneel on one knee and extend the other leg backwards, then bend body forward until face reaches knee; first with help of hands, then without and backwards off.

c.

- 1) 1. — Face side of beam and jump on with both feet together;
- 2) 2 to 8. — Swing leg forwards, backwards and forwards again;

- 3) 9 to 12. — Raise knee or heel and grasp ankle, bringing face to knee at same time;
- 4) 13 to 18. — Extend arms forwards and twist body alternately to right and left;
- 5) 19 to 12. — Gallop sideways to and fro along top of beam;
- 6) 23 to 25. — Same as in b. but kneeling with the other knee.

II.

The beam to be placed $1\frac{1}{2}$ foot from the ground.

a.

- 1) Stand crossways over beam and jump on without turning;
- 2) Walk quickly backwards and forwards;
- 3) Cross legs and with toes turned outwards as much as possible travel forwards and backwards, placing feet close together at each step;
- 4) Turn quickly from cross-stand to side-stand and back again, without moving from spot, also in couples face to face or with folded arms;
- 5) Two to sit down with help of hands in cross-seat on one thigh, at same side or upon opposite sides and push each other from balance with flat hand against chest or back.

b.

- 1) Stand crossways over beam and jump with $\frac{1}{4}$ turn to side-stand on beam;

- 2) Gallop sideways;
- 3) Swing one leg forwards and backwards, swinging corresponding arm in the same or opposite direction;
- 4) Travel along top of beam, turning round at same time (waltzing);
- 5) Side-stand on beam by two pupils, feet wide apart, both facing the same way and pushing each other as in a.

c.

- 1) Stand crossways over beam and jump with $\frac{1}{2}$ turn to cross-stand on beam;
- 2) Gallop forwards and backwards with change of step;
- 3) Stand on one leg, bend body forward, extend free leg backwards or bend body sideways and extend free leg in opposite direction, arms to be extended forwards or hands to rest on knee of balancing leg;
- 4) Side-stand on beam, feet wide apart, travel along top of beam by turning forwards alternately right and left, feet to be kept the same distance apart;
- 5) Side-stand on beam by two pupils, facing opposite sides and pushing each other as in b.

III.

The beam to be placed two feet from the ground.

a,

- 1) Stand crossways over beam, step on with right foot and rise slowly to erect position on right leg;
- 2) Walk along top of beam, bending knee slightly at each step and raising free leg well forwards;
- 3) Walk backwards along top of beam, raising knee and leg well backwards at each step;
- 4) Trot forwards and backwards with short quick steps;
- 5) Pass one another on beam, catching hold of each other. Commence by placing left foot close to the outside of your opponent's left foot and finish by both making left about-turn at same time (**Fig. 1**);
- 6) Jump off end of beam.



Fig. 1.

b.

- 1) Stand crossways over beam, step on with left foot and rise slowly to erect position on left leg;

- 2) Walk backwards, bending knee slightly at each step and extending free leg well backwards;
- 3) Walk forwards, raising knee and extending leg well forwards at each step;
- 4) Walk forwards and backwards with change of step;
- 5) Pass one another on beam with linked arms. Commence by placing left foot behind your opponent's left foot and finish by both making left-about turn at same time (**Fig. 2**);
- 6) Jump off end of beam with $\frac{1}{4}$ turn.



Fig. 2.

c.

- 1) Buck-jump on to end of beam;
- 2) Walk, bending knee and swinging free leg forwards and backwards;
- 3) Walk, raising knee and stepping over an extended wand at each step;
- 4) Lunge forward and bend body forward until face meets the knee, shin or foot of the front leg;

- 5) Pass one another on beam, hand in hand or both grasping a short stick held horizontally. Commence by grasping hands and placing left foot opposite your opponent's and finish by swinging arms outwards to the side, both turning to the left-about at same time (**Fig. 3**);

- 6) Buck-jump off end of beam.



Fig. 3.

IV.

Beam to be placed $2\frac{1}{2}$ feet from the ground.

a.

- 1) Front-vault swing into squatting position on beam;
- 2) Travel forwards and backwards in squatting position and with help of hands, either one after the other or both together; crawl forwards and backwards on hands and feet or on hands and knees;
- 3) Rise to erect position and limp on spot;
- 4) Jump up, opening legs wide at each time;
- 5) Sink to squatting position and travel for-

- wards and backwards, with extension of free leg at each step;
- 6) Jump sideways off beam as far as possible.

b.

- 1) Front-vault-swing to cross-seat (riding-seat) on beam, swing legs backwards up and with help of hands jump to cross-stand on beam;
- 2) Grasp ends of a short stick with both hands, lean forward until it touches the beam and walk forwards and backwards sliding stick along beam;
- 3) Rise to erect position and limp forwards and backwards, or hop with free leg extended sideways;
- 4) Jump on spot with $\frac{1}{4}$ turn at each jump;
- 5) Sink and rise on one leg, at first keeping free leg against beam and afterwards with a swing forwards and backwards, also same exercise from tip-toes;
- 6) Jump off, turning to right or left.

c.

- 1) Front-vault-swing into leaning-rest on beam (face downwards);
- 2) Travel forwards and backwards in leaning-rest with use of hands only (wheelbarrow);
- 3) Limp sideways along top of beam to right and left;
- 4) Jump, making $\frac{1}{2}$ turn each time, in side-stand and cross-stand;

- 5) Limp forwards and backwards, at first with free leg placed against side of beam;
- 6) Buck-jump off from side of beam.

V.

Beam to be placed 3 feet from the ground.

a.

- 1) Jump to cross-seat on one thigh without use of hands;
- 2) Change from cross-seat on one thigh to riding-seat and so on, by swinging legs forwards;
- 3) Swing legs forwards from riding-seat and extend them along top of beam;
- 4) Drop both legs to same side of beam, turn and rest on hands (facing-beam), raise one foot on beam and rise to cross-stand on beam;
- 5) Walk forwards, stepping over a person lying across or along top of beam;
- 6) Sink at knees and drop into riding-seat or side-seat on one thigh with help of hands, travel along beam on hands in balance-rest, off with front-vault-swing.

b.

- 1) Jump obliquely from right side to cross-stand on beam;
- 2) Sink to cross-seat on one thigh and with help of hands and a $\frac{1}{2}$ turn change to cross-seat on the other thigh in opposite direction at same side of beam;

- 3) In cross-seat on one leg swing outside leg over the other and sit cross-legged;
- 4) Drop both legs and turn to side-rest on beam (facing it), then squat or straddle to side-stand on beam;
- 5) Walk sideways along top of beam, step over a person hanging from it, afterwards assisting him on to beam;
- 6) Sink at knees and drop to riding-seat without help of hands, swing legs backwards up, crossing them in scissors motion and sit again across beam (back-scissors), then swing one leg forwards over beam and alight at side of it without help of hands.

c.

- 1) Jump as in b. but from left side;
- 2) Sink to cross-seat on one thigh, swing both legs backwards and change from one side of beam to the other;
- 3) Swing legs forwards, lean back and lie extended full length on beam;
- 4) Sit up and turn to back-rest on beam, holding legs extended forwards;
- 5) Buck-jump on to beam over a person sitting in riding-seat;
- 6) Sink down to cross-seat on one thigh, kneeling first, but without help of hands;
- 7) Off with front-vault-swing.

JUMPING.

The apparatus consists of two stands, a rope and a jumping board.

In jumping, attention must be paid to the run previous to the jump, to the spring off from the board with right, left or both feet together, to the position whilst jumping and to the finish afterwards.

Both feet should be practised alternately, with and without the board.

I. Preparatory Exercises.

The rope is placed at the height of about 1 foot. From standing position on the board, clear the rope, finishing with closed heels.

- 1) After several preliminary jumps upon the board itself;
- 2) From squatting position;
- 3) From front-straddle position, swinging behind leg forwards;
- 4) From stand on one leg, after swinging the other backwards and forwards.

II. High-Jump.

Attention must be specially directed to the full raising of knees (**Fig. 4**) whilst jumping and the straightening of legs afterwards.

a.

High-jump with closed feet.

- 1) Forwards;
- 2) The same with $\frac{1}{4}$ or $\frac{1}{2}$ turn;
- 3) Sideways;
- 4) The same with a turn as in No. 2;
- 5) Backwards;
- 6) The same with a turn as in No. 2;
- 7) Forwards with straddle whilst jumping (more difficult with a turn);
- 8) Forwards with closed legs, swinging them straight forwards during the jump;
- 9) Forwards, raising heels.

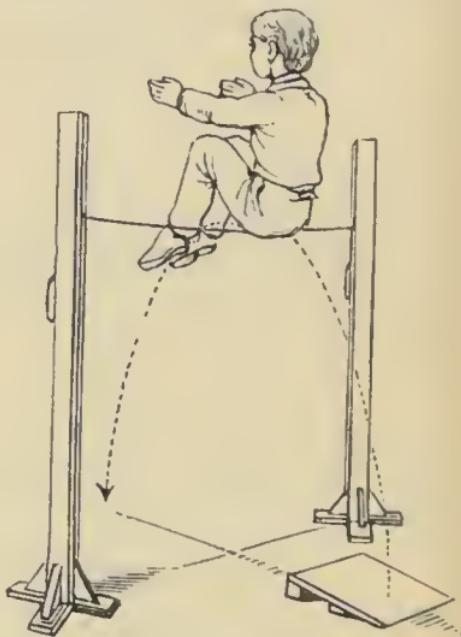


Fig. 4.

Repeat exercises, prefacing each with a walk, hop or run on spot, or from a distance.

b.

High-jump with a run and from one foot.

- 1) Forwards over rope;
- 2) The same with $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, or full turn.
First practise right foot with a right turn and left foot with a left turn, then vice-versa.

III. Long-Jump.

Special attention must be paid to the complete extension forwards and closing of legs whilst jumping (Fig. 5).

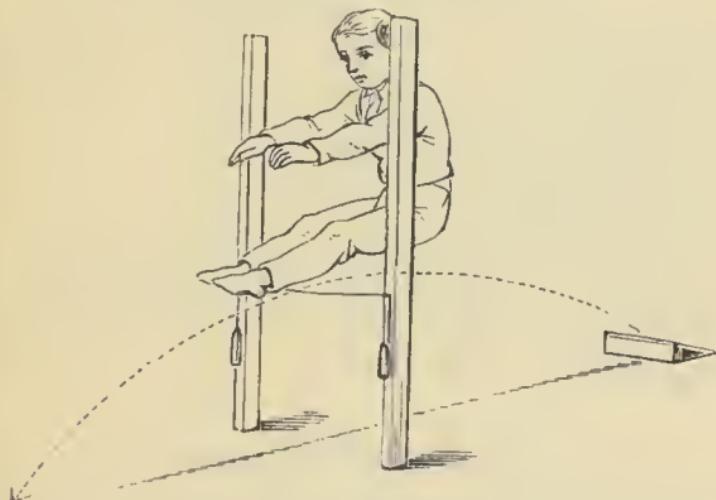


Fig. 5.

a.

Long-jump with closed feet.

- 1) Forwards;
- 2) The same with $\frac{1}{4}$ and $\frac{1}{2}$ turn, also pre-

face each exercise with a walk, hop or run on spot, or from a distance.

b.

Long-jump from one foot.

- 1) From front-straddle position, swinging behind leg well to the front with one or more swings;
- 2) With a turn;
- 3) With a walk or run;
- 4) Carrying dumb-bells or wands.

IV. Long High-Jump.

The length and height to be regulated by the leader.

- 1) Forwards from both feet;
- 2) The same with a turn;
- 3) The same with a run;
- 4) Forwards from one foot;
- 5) Over two ropes, placed at equal or irregular heights and distances (see ropes 2 and 4 in Fig. 6).

V. Consecutive Jumps.

Two or more boards are placed in front of rope and jumps are made from one to the other without pause, finally clearing the rope.

- 1) From one or both feet, gradually raising rope;
- 2) The same, gradually extending length of last jump;

- 3) The same, gradually placing boards at wider distances apart;
- 4) The same, inserting ropes between the boards.

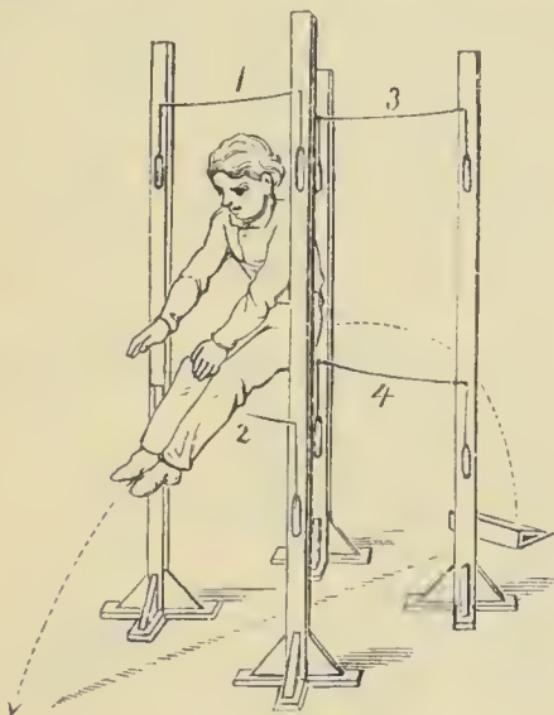


Fig. 6.

VI. Window-Jumps.

Two ropes are placed one directly over the other (as 1 and 2 or 3 and 4 in Fig. 6) or obliquely (as 1 and 4 or 3 and 2 in Fig. 6). The difference of height to be about 4 feet and the jumps to be made between the ropes.

- 1) The ropes to be brought closer together after each jump;

- 2) Respective height of ropes to be maintained, but distance between stands to be gradually lessened;
- 3) After each jump, both ropes and stands to be brought closer together;
- 4) Place two ropes on each stand and gradually increase distance between the stands;
- 5) Jump between ropes, head first and with arms extended forwards, landing after momentary rest of hands on shoulders of leader, who stands behind the rope (Tiger-leap).

VII. Jumps from squatting position.

- 1) High-jump over rope;
- 2) Long-jump over rope;
- 3) With a turn, straddle &c.;
- 4) With a run;
- 5) With hopping,
 - a. both legs closed and straightened.
 - b. legs kept in squatting position.
 - c. with bending of knees, straightening of legs and swinging of arms high above head, at each hop.
 - d. the same with side-straddle each time.

VIII. Various Jumps.

- 1) Jumps sideways over rope, raising legs or knees forwards;
- 2) The same, swinging legs backwards;
- 3) The same as in No. 2, swinging arms forwards above head;

- 4) The same jumps with a run;
- 5) With a turn when over rope, or with repetition of the same beyond the rope;
- 6) Jump, running obliquely towards rope (Fig. 7);

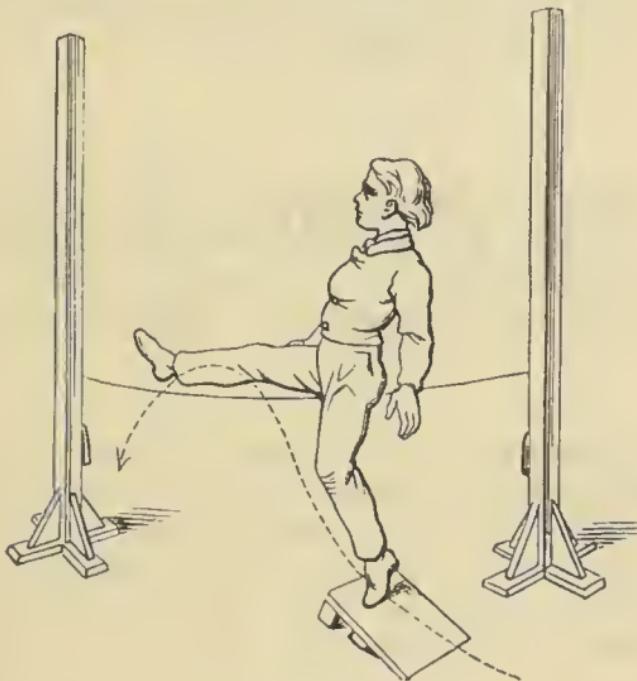


Fig. 7.

- 7) Jump with various arm movements, such as extending, swinging or thrusting of arms, hands on hips, clapping of hands between legs, momentarily touching shins, feet &c.;
- 8) From front-straddle position with back to rope, jump with a $\frac{1}{2}$ turn over rope;

- 9) Make a complete turn in the last part of the run and jump forwards, also with a reverse turn whilst jumping;
 - 10) Holding on iron rod, wand &c. and with various movements of the same, such as raising, thrusting &c.;
 - 11) Two or more together, grasping each other's hands or carrying wands.
-

THE STORMING BOARD.

This apparatus consists of a jumping board at least 2 yards long and $\frac{1}{2}$ yard broad, capable of adjustment to any height and angle.

In jumping at the storming board attention must be paid to breaking the force of the fall by sinking into squatting position immediately the ground is touched and to alighting with both feet together. Care must be taken not to lean too far forward.

I. Jumps sideways off the board.

a.

- 1) Jump on to board with one foot and off either side, swinging free leg well forwards in oblique direction (**Fig. 8**);
- 2) The same with $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ or full turn;
- 3) Jump on with both feet and off either side;

- 4) The same with a turn;
 5) The same exercises, jumping on with $\frac{1}{4}$ or $\frac{1}{2}$ turn and off either forwards, sideways or backwards.

b.

- 1) Jump to middle of board with one or both feet and then off sideways;
 2) The same with $\frac{1}{4}$ or $\frac{1}{2}$ turn,
 a. whilst jumping on to board,
 b. whilst jumping off the board,
 c. at both jumps;
 3) The same as in Nos. 1 and 2,
 a. with raised knees.
 b. with legs in front- or side-straddle,
 c. with raised heels,
 d. with arms swung forwards or sideways,
 e. with arms thrust in various directions,
 f. simultaneous movements of arms and legs.



Fig. 8.

Many more exercises of a similar character can be arranged, more particularly if a hop or similar movement upon the board be inserted.

c.

- 1) Step with one foot upon bottom of board, then with the other to middle and off sideways or obliquely forwards as far as possible;
- 2) Step with one foot upon bottom of board, then jump with both feet to middle and off either side;
- 3) Jump with both feet on bottom of board, then with one foot to middle and off as before;
- 4) Jump with both feet on bottom of board, then to the middle and off as before;
- 5) Exercises Nos. 1) to 4) with $\frac{1}{4}$ or $\frac{1}{2}$ turn,
 - a. whilst jumping off,
 - b. during the second step or jump on the board;
- 6) The same with arm or leg movements.

II. Running and hopping on the board.

- 1) Stamp quickly with both feet;
- 2) Run or hop up the board, turn and come down;
- 3) The same sideways up and down;
- 4) The same backwards up and down;
- 5) The same as in Nos. 2) to 4) in squatting position;
- 6) The same as in Nos. 2) to 4) in fencing-step.

These exercises can also be easily done in pairs, face to face, side to side, hand in hand or with linked arms.

III. Jumps off top of board.

- 1) Run with three steps to top of board and jump forwards off from one or both feet, with straddle, with raised knees, with turn &c.;
- 2) The same with two steps only and then with simply one;
- 3) The same with one, two or three steps to top of board, turn and jump off down the board;
- 4) One, two or three steps up the board and jump over;
- 5) Jump up the board and over with closed feet, the board being placed at a less inclination than in No. 4;
- 6) Repetition of the foregoing exercises with gradually steeper board.

IV. Jumps over rope.

a.

With the rope beyond the board, jump over with high-jump, with long-jump or with combination of both, prefacing with two or three steps in front of board, but only one step on the board itself (**Fig. 9**).

b.

With rope at side of board practise the exercises of group I.

c.

With rope in front of or above the board.

- 1) Jump over rope on to board and off left or right, the jump being made from a small

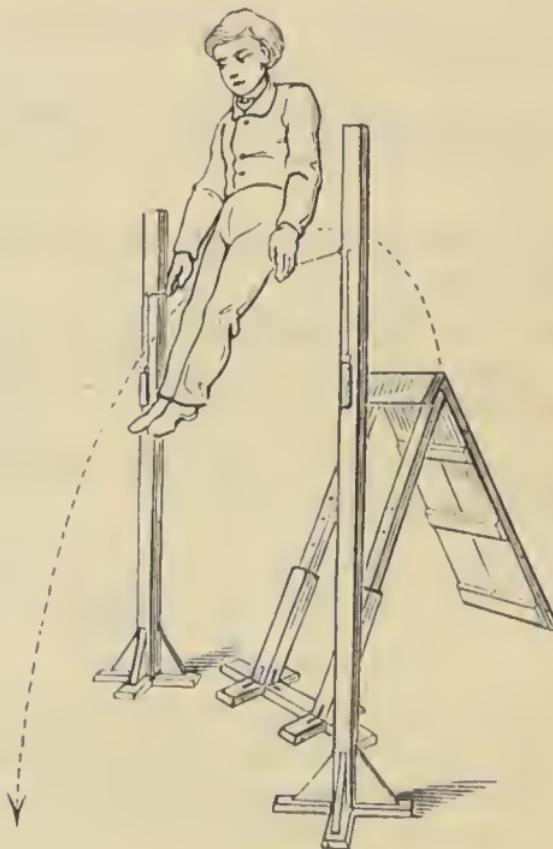


Fig. 9.

board placed in front, or from the lower portion of the storming board itself;

- 2) The same with either high- or long-jump;

- 3) After clearing rope, run with one or more steps up the board and jump forwards off;
- 4) The same with turn at top of board and run down, clearing rope again.

V. Pike-Jumps.

- 1) In leaning-rest on board raise one leg backwards;
- 2) Step with one foot upon bottom of board and bend forward to leaning-rest on board, raising free leg well backwards;
- 3) The same as No. 2, but completing by jumping up to standing position on both feet;
- 4) Jump with one or both feet on to board, then forwards on to hands, throwing legs well backwards at same time and push off obliquely to ground (Pike-jump);
- 5) After a short run jump with hands on to board and drop legs to leaning-rest (**Fig. 10**).

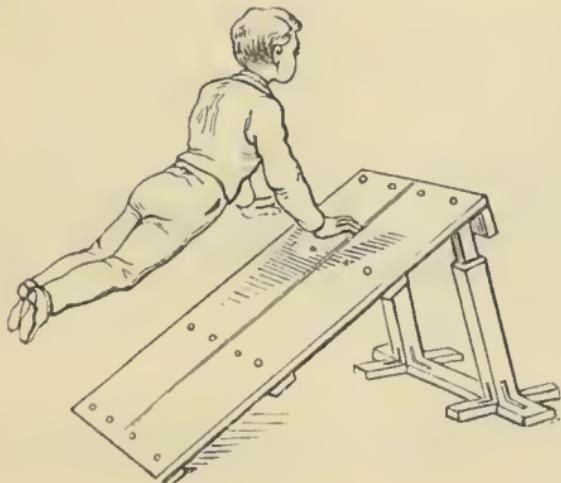


Fig. 10.

VI. Various Exercises.

a.

- 1) Crawl up board in leaning - rest and off forwards with squatting - vault, straddle-vault, front-vault, somerset &c.;
- 2) Climb up and down the board in leaning-rest, grasping edges of board,
 - a. head first,
 - b. feet first (**Fig. 11**);



Fig. 11.

- 3) Roll forwards and backwards down the board.

b.

Exercises from beyond the board and over its highest edge, such as straddling into sitting position, somerset and roll-over into lying position on board &c.

c.

Jumps, both on and over the board from the side, with or without a run, for example:

With front-vault-swing into squatting position, then standing up and jumping off forwards; front-vault over top or bottom of board; front-vault with outside-turn over top or bottom of board; jump over board, with or without touch of one foot, and also with oblique run.

d.

Numerous exercises can be arranged by placing several storming boards together, or by placing a support under both ends of the board. This latter can be varied by pupils holding it in position.

POLE JUMPING.

The apparatus consists of two jumping stands and a pole from 7 to 10 feet long.

The pole-jump to the right is executed with a jump from the left foot, the pole being held on left side of body. In the following exercises the jump to the right only is described, but of course both sides should be practised.

I. Preparatory Exercises.

- 1) Starting position: Place the pole to the right side and grasp with right hand at height of head;

- 2) Turn slightly to the right, placing right leg backwards and keeping face in its original direction, grasp pole in reverse grasp with left hand at height of chest;
- 3) Drop and straighten right arm and place left elbow close to left side, bottom end of pole being raised to height of eyes. This is the starting position (**Fig. 12**);
- 4) Raise right arm, place end of pole to the ground about $1 \frac{1}{2}$ foot in front of left foot, bending left knee slightly (**Fig. 13**). In doing this, reverse position of arms by bending right arm and straightening left, but without shifting the hold;



Fig. 12.

This is the starting position



Fig. 13.

- 5) In the course of this movement the right leg is swung forward, the pole being brought to a vertical position;
- 6) Movements 4 and 5 to be done together, without interruption and then
- 7) Jump forward with $\frac{1}{4}$ or $\frac{1}{2}$ left turn.
In assisting the pupil, the leader should place his left foot before the bottom end of the pole, grasping it with left hand at height of hips and with right hand on the arm of the pupil and then push him in the required direction.

The jump with $\frac{1}{4}$ left turn brings the pupil into flank-vault position over the rope (**Fig. 14**)

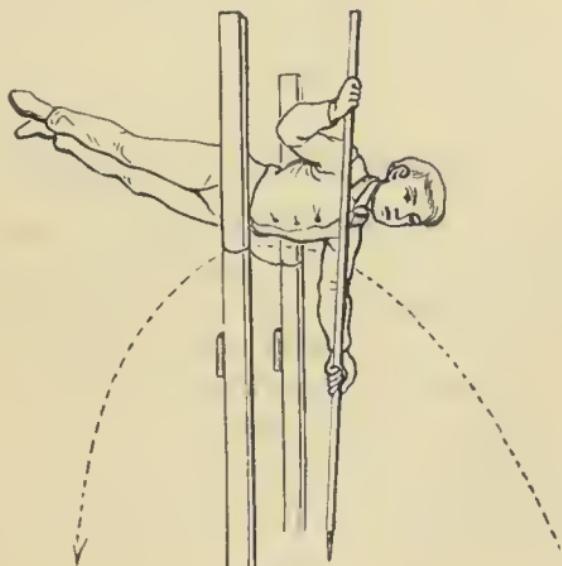


Fig. 14.

and $\frac{1}{2}$ turn into front-vault position, which completes the jump (**Fig. 15**).

- 8) Repeat No. 7) with three slow or quick steps and without help from leader.
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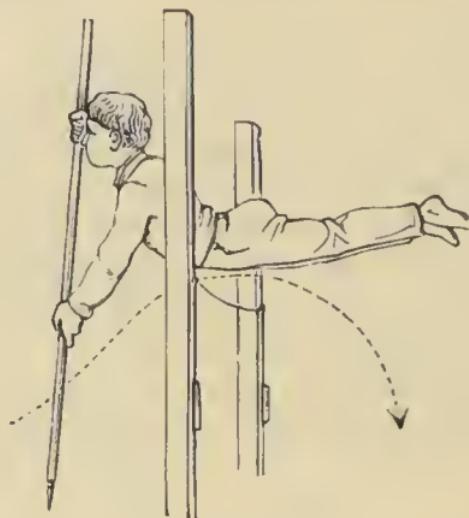


Fig. 15.

II. Long - Jump with pole.

- 1) Practise starting position the same as before, left foot on the board, placing the pole to the ground direct in front of left foot;
- 2) Walk forwards with pole held and placed as previously described and jump;
- 3) The same with a run;

To jump correctly, the end of the pole must be placed in a line with the course of the jump;

- 4) Jump over rope as far as possible, placing the pole between board and rope;
- 5) Long - jump, making a long leap before placing the pole down.

III. High-Jump with pole.

Up to 4 feet the pole is to be taken over the rope and after that height the more experienced can also try it, but as a rule the pole should be allowed to fall back upon the board.

IV. Various Exercises.

- 1) Jump without turning;
- 2) Jump to the right with $\frac{3}{4}$ or full left turn or with $\frac{1}{4}$ right turn;
- 3) Jump over rope with body straightened as much as possible;
- 4) Circular leap round the pole; at first without going over the rope;
- 5) Grasp pole with both hands above height of head and jump forwards, legs astride the pole. The length of the leap can be extended by climbing up the pole in the course of the jump;
- 6) Place the pole loosely in the ground and only grasp after start of jump, legs being either placed astride or both together on one side of pole;
- 7) Jump between two poles placed upright about two yards apart and climb up them, as far as possible in the course of the jump;
- 8) Climb up a pole placed loosely in the ground and drop down with same, legs either astride or on one side of it;
- 9) Jump several times in succession, alternately to left and right, making $\frac{1}{2}$ turn each time.

- The grasp remains stationary throughout; if starting with the left foot, land on the same and step forwards with the right, placing the reverse end of pole to the ground, jump and land on right foot, step forwards with the left again and so on;
- 10) Jump over different apparatus, such as buck, horse, bars &c.;
 - 11) Jump between ropes placed one above another (window-leap) or through hoops.
-

THE BUCK.

The apparatus consists of a moveable padded buck, adjustable to any height from 3 to 6 feet.

The leader in assisting the pupil must place himself before, behind or beside the buck, according to the nature of the exercise and in extra high or long jumps, two leaders should assist. — Jumping without a board should be diligently practised.

I. Preparatory Exercises.

Stand before buck placed lengthways and level with the chest.

a.

Place both hands on buck and jump up several times.

- 1) Straightening legs and throwing them well backwards (**Fig. 16**);

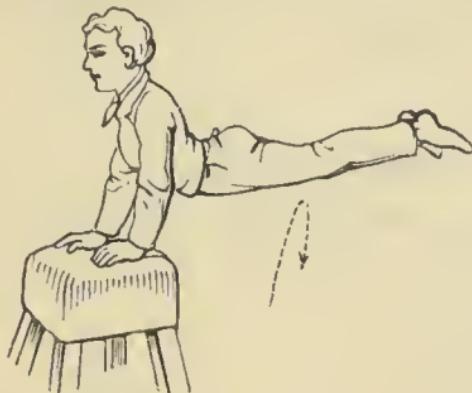


Fig. 16.

- 2) Arching back;
- 3) Momentarily straddling legs (**Fig. 17**);
- 4) Raising knees and straightening one or both legs;
- 5) Crossing one leg over the other, without (**Fig. 18**) or with $\frac{1}{4}$ or $\frac{1}{2}$ left turn.



Fig. 17.



Fig. 18.

Practise the same exercises with a run, throwing legs backwards to height of buck and pushing off with straight arms, either back to board or beyond it.

b.

With or without a run.

- 1) Jump to seat astride (riding-seat **Fig. 19**) and back to board;



Fig. 19.



Fig. 20.

- 2) Jump to balance-rest, legs astride (**Fig. 20**) sink to riding-seat and off forwards;
- 3) Leaning-rest on buck with thighs resting against it, rise to riding-seat and off forwards from either position;
- 4) Straddle over buck and sit on opposite side with closed legs;

- 5) Straddle over buck to back-leaning-rest on same and off forwards with or without use of hands;
- 6) Jump with $\frac{1}{4}$ turn to side-seat on right or left side of buck;
- 7) Jump to cross-seat on one thigh on side of buck (**Fig. 21** and **22**);



Fig. 21.



Fig. 22.

- 8) Jump with $\frac{1}{4}$ turn to front-rest on side of buck;
- 9) With either walk or run and with rest on one or both hands jump from one or both feet to standing position on either side of buck, with or without turn.

II. Exercises in the balance-rest on buck.

With buck placed lengthways rest on hands, legs astride without touching buck (balance-rest) (**Fig. 20**). In this position

- 1) Bend and straighten knees;
- 2) Walk forwards and backwards on hands;
- 3) Hop forwards and backwards on hands;
- 4) Turn to left and right;
- 5) Swing legs forwards and backwards;
- 6) Place legs in front-straddle and swing them sideways to right and left.

III. Jumps on and off the buck.

The buck is placed either sideways or lengthways.

- 1) Jump and kneel on one knee, the free leg being extended backwards, sideways or forwards, the jumping off following
 - a. with push off of hands from top or side of buck,
 - b. with help of hands and straddle off,
 - c. after sitting down by jerking off without help of hands,
 - d. with jump from the knees without help of hands, alighting before, behind or beside the buck (**Fig. 23**);



Fig. 23.

- 2) Jump and kneel on both knees and jump off as in No. 1;
- 3) Jump on as in Nos. 1 and 2, and jump up to erect position on buck;
- 4) Jump and kneel on one or both knees after $\frac{1}{4}$ or $\frac{1}{2}$ turn.

IV. Jumps over the buck.

a.

The buck is placed either sideways or lengthways.

- 1) High buck-jump, gradually increasing height (Fig. 24 and 25);



Fig. 24.



Fig. 25.

- 2) Long buck-jump; the jump being lengthened by drawing the board further away or by

- alighting further beyond the buck, or by combining both;
- 3) Combination of Nos. 1 and 2.

b.

The buck is placed either sideways or lengthways.

Buck-jump with clapping of hands or grasping of thighs

- 1) Directly after leaving the board;
- 2) Just before alighting;
- 3) Nos. 1 and 2 combined;
- 4) Just before placing hands on buck;
- 5) Also with swing of arms forwards or sideways just before alighting;
- 6) Whilst jumping over elevate back, swing legs forwards, raise knees &c.;
- 7) Also turn before alighting.

c.

The buck is placed lengthways.

Buck-jump over buck

- 1) With both feet and help of hands.
 - a. with one hand after the other,
 - b. with both hands together, reaching backwards and pushing off,
 - c. with one hand only;
- 2) With one foot and rest on both hands;
- 3) With one foot and rest upon corresponding or opposite hand;
- 4) With one foot and without rest on hands, being a free jump to standing position on or over buck.

V. Buck-Jumps with turning.

The buck is placed lengthways.

a.

- 1) Jump up to rest, straddle on to buck with $\frac{1}{4}$ turn and return back to board;
- 2) Jump with straddle and $\frac{1}{4}$ turn as in No. 1 to side-seat on one thigh (Fig. 26);
- 3) The same, jumping sideways over the buck;
- 4) The same, but before alighting make a second $\frac{1}{4}$ turn in the same direction as the first;
- 5) The same, but turn in the reverse direction;
- 6) Jump over buck, making $\frac{1}{4}$ or $\frac{1}{2}$ turn immediately before alighting.



Fig. 26.

b.

- 1) Jump on with crossed legs (Fig. 18). When the right leg is in front, turn to the left and vice versa;
- 2) Jump with crossed legs, making $\frac{1}{4}$ left turn to side-seat on left thigh;
- 3) The same with $\frac{1}{2}$ left turn to riding-seat;
- 4) The same with $\frac{3}{4}$ left turn to side-seat on left side;
- 5) Jump over buck, legs crossed, with $\frac{1}{4}$, $\frac{1}{2}$ or $\frac{3}{4}$ turn.

c.

- 1) Jump with $\frac{1}{2}$ left turn to cross-seat on right thigh on right side of buck (Fig. 21);
- 2) The same with $\frac{3}{4}$ turn to side-seat on side of buck;
- 3) The same to riding-seat on buck (screw-mount);
- 4) The same to standing position beyond the buck (screw-vault).

d.

- 1) Jump with $\frac{1}{4}$ right turn to side-seat on both thighs on right side of buck;
- 2) The same with $\frac{1}{2}$ right turn to cross-seat on right thigh;
- 3) The same with $\frac{1}{2}$ right turn to front-leaning-rest, also to riding-seat;
- 4) The same to standing position beyond buck (facing it).

Jumps corresponding to the above, but to standing position on right or left side of buck and with help of one or both feet, or of one or both hands can also be practised.

VI. Squatting Exercises.

The buck is placed sideways.

- 1) Jump and kneel on one or both knees and off forwards, sideways or backwards;
- 2) Jump and squat on one or both feet, inside or outside of hands, off as before;
- 3) Jump and squat on one leg, kneeling with the other;

- 4) Squat on one or both legs (**Fig. 27**) and rise to erect standing position, off forwards or sideways with closed or straddled legs, also with knees or heels raised;

- 5) Squat over with one or both legs between arms into side-seat on one or both thighs;
- 6) The same to riding-seat (buck being placed lengthways);
- 7) Squatting - vault over buck;
- 8) The same with $\frac{1}{4}$ or $\frac{1}{2}$ turn before alighting;
- 9) Jump with straddle of legs to squatting position on buck, bringing feet in front of hands (cat-jump);
- 10) The same over buck;
- 11) The same or squatting-vault, gradually increasing length of jump both before and behind buck;
- 12) Squatting-vault with turn (care is required). With the buck placed lengthways, the above exercises are somewhat more difficult.



Fig 27.

VII. Various Exercises.

- 1) Buck - jump over a rope placed beyond buck, rope to be gradually raised or placed further away;

- 2) The same with rope in front of buck;
- 3) The same with rope both behind and in front;
- 4) The same between two ropes placed in front of buck (window-jump);
- 5) Lengthen jump by placing someone either behind or in front of buck;
- 6) Heighten jump by placing someone on buck;
- 7) Dismount from riding-seat in front-vault or in screw-vault by leaning forward and grasping one or both legs of buck, — also somersault;
- 8) Jump over two bucks placed beside or behind each other.

All the chief exercises on the horse, such as flank-, front- and rear-vaults, circles, straddles &c. may also find a place here.

- 9) Combination of buck- and horizontal bar exercises, so that
 - a. the bar exercises follow the buck-jump,
 - b. the bar exercises precede the jump on or over the buck.
-

THE HORSE.

The horse is generally placed at the height of chest and the exercises are done either with a run or from standing position, whilst they are more difficult from the rest or after some preliminary exercise.

The dismounting or jumping down from the horse is only specially mentioned in a few exercises, as it is left to the leader to select his own finish, choosing one that follows naturally upon the movement he has shown. The choice generally lies between

- a. back to the starting point,
- b. back to the same with circle-exercise,
- c. with change of rest to the other side of the horse,
- d. or without change to the other side.

A. EXERCISES FROM SIDE OF HORSE.

In exercises from the side, the horse is generally placed so, that the neck is to the left of the board and the croup to the right, the side nearest the board being called the near-side and the other, the off-side. The pommels, about 3 inches high, are generally left on, but one or both can be removed, making the exercises more difficult of execution.

I. Preparatory Exercises.

a.

With grasp of pommels.

- 1) Jump several times in succession into rest, arms and legs straightened, back hollowed, head raised freely from shoulders and inclined a little backwards. The thighs should not lie against the horse in this exercise;
- 2) Jump up with $\frac{1}{4}$ turn to cross-seat on one thigh on saddle, croup or neck (**Fig. 28**);



Fig. 28.

- 3) The same with $\frac{1}{2}$ turn to side-seat;
- 4) Jump and kneel
 - a. on right knee,
 - b. on left knee,
 - c. on both knees,

} on saddle, croup or neck.

In a. and b. the free leg is held extended, straight against side of horse and in all three

the jump off is made forwards or backwards in knee-jump:

- 5) Jump and squat on one or both legs on saddle, croup or neck;
- 6) Jump and kneel or squat on one leg, the free leg being extended sideways upon the horse or held horizontally forwards.

b.

Exercises from the rest. In ordinary side-rest, the hands must grasp the middle of the pommels and the body must be inclined forwards whilst the thighs lean against the horse (**Fig. 29**).

- 1) Extend leg sideways on horse,
 - a. right foot upon croup,
 - b. left foot upon neck,
 - c. right and left foot alternately;
- 2) Repeated change of rest from pommel
 - a. with one hand to saddle, croup or neck,
 - b. with both hands together, hopping to saddle or outside of pommels;
- 3) Rise and kneel or squat
 - a. on one knee,
 - b. on both knees,
 - c. kneel on one and squat on the other (**Fig. 30**),
 - d. with change from one to the other;



Fig. 29.

- 4) Straddle;
- 5) Raise right and left leg alternately backwards, bending forward each time (**Fig. 31**);

- 6) Knee-jump and stand or sit on horse.



Fig. 30.



Fig. 31.

c.

Exercises with a run. In these exercises the body must be thrown well backwards directly after leaving the board and the arms kept straight whilst in the rest.

The alighting takes place

- a. backwards on to board,
- b. backwards beyond the board. } also with
- c. sideways to side of board, } a turn.

The following leg and body movements may be made during the back-swing before alighting.

- 1) Extension of legs,
 - a. of one leg sideways to the outside,
 - b. obliquely forwards to the inside;
- 2) Side-straddle and closing of legs;
- 3) Raising of one or both heels;
- 4) Raising of one or both knees;
- 5) Arching of back;
- 6) Turning sideways of hips;
- 7) Swinging sideways of legs.

The above exercises are rendered more difficult by not alighting at once, but passing to ordinary side-rest, cross-seat &c., or by drawing the board further away.

II. Squatting Exercises.

a. Squatting Exercises forwards without turning.

- 1) Jump and squat with one foot on saddle, croup or neck;
- 2) Squat through arms with one leg to side-seat;
- 3) Squat on horse with both feet;

- 4) Squat through to the side-seat on the off-side of horse;
- 5) The same to the back-rest (see Fig. 40), to back-bent-arm-rest or to lying across the horse;
- 6) Squat through to the back-rest and mount immediately as in group V. B.;

- 7) Squatting-vault over horse (**Fig. 32**):
 a. with forward extension of legs,
 b. with straightening of body by pushing well off with hands;
- 8) Squatting-vault with momentary straddle and closing of legs before alighting;
- 9) Squatting-vault as far as possible beyond the horse, the board being gradually placed further away;
- 10) Squatting-vault with $\frac{1}{4}$ or $\frac{1}{2}$ turn before alighting.



Fig. 32.

b. Squatting Exercises sideways with $\frac{1}{4}$ turn.

- 1) Jump up with $\frac{1}{4}$ left turn and squat with right leg on saddle, croup or neck.

The free leg remains against near-side of horse;

- 2) Jump up with $\frac{1}{4}$ left turn and squat with both legs on saddle, croup or neck;

- 3) Jump up with $\frac{1}{4}$ right turn and squat with right leg on saddle, croup or neck.

The free leg either circles over horse or squats through between arms;

- 4) Squatting-vault sideways ($\frac{1}{4}$ l. turn) over saddle, croup or neck.

c. *Squatting Exercises backwards with $\frac{1}{2}$ turn*
 (not to be practised without help).

- 1) Jump up with $\frac{1}{2}$ left turn to the back-rest on near-side of horse (right hand grasps left pommel, see Fig. 40);
- 2) Jump up with $\frac{1}{2}$ left turn and squat with one or both legs;
- 3) Squat over horse with $\frac{1}{2}$ left turn;
- 4) Squatting-vault backwards over horse. With left turn the right hand retains grasp and vice versa;
- 5) Squatting-vault backwards to the front-rest on off-side of horse, followed by various mounts as in V. A.

d. *Squatting Exercises backwards from the back-rest.*

Each exercise begins with a jump up to the back-rest as in Fig. 40.

- 1) Squat backwards to side-seat on one thigh;
- 2) The same with $\frac{1}{4}$ turn to riding-seat;
- 3) The same with $\frac{1}{2}$ turn to side-seat on one thigh;
- 4) Squat backwards with one leg and forwards with the other at the same time;
- 5) The same with $\frac{1}{2}$ turn;
- 6) Squat backwards and stand on horse;
- 7) The same to the front-rest;
- 8) The same to the front-rest and immediate mount on or swing over the horse;
- 9) Squatting-vault backwards with or without turn.

A further variety of squatting exercises can be made by placing the hands inside or outside the pommels, or one hand on pommel and the other off, or with rest of one hand only.

III. Wolf-Jumps.

a. In flank-vault-swing.

- 1) Jump up and extend one leg straight over croup or neck whilst the other squats on saddle;
- 2) Change respective position of legs
 - a. with intermediate jump-down,
 - b. without;

- 3) Jump over horse with one leg extended straight over croup or neck and the other squatting over saddle into the balance - rest, one arm between extended legs;
- 4) Wolf-jump to seat on saddle, croup or neck;
- 5) Wolf-jump (**Fig. 33**) over horse;
- 6) The same with turn just before alighting.



Fig. 33.

b. In front-vault-swing.

- 1) Jump up with $\frac{1}{4}$ left turn, one leg extended straight over croup, the other squatting on saddle,
 - a. the right leg squatting and the left extended,
 - b. the left leg squatting and the right extended;
- 2) Wolf-jump to seat on saddle, croup or neck;
- 3) Wolf-jump over horse (Fig. 34).



Fig. 34.

c. In rear-vault-swing.

- 1) Jump up with $\frac{1}{4}$ left turn, left leg extended and right leg squatting and vice versa;
- 2) The same to seat;
- 3) Wolf - jump overhorse (Fig. 35).



Fig. 35.

IV. Straddle Exercises.

- 1) Jump up into rest with momentary straddle of legs;
- 2) Jump up and straddle on horse;
- 3) Jump from straddle to ordinary standing position and then forwards off;

- 4) Jump with momentary straddle and stand between pommels;
- 5) Jump with squatting movement and straddle on horse;
- 6) Straddle over the horse (**Fig. 36**);



Fig. 36.

- 7) Straddle to side-seat between pommels;
- 8) Straddle obliquely over croup or neck;
- 9) The same with $\frac{1}{4}$ turn, alighting with back to horse;
- 10) Straddle with a turn just before alighting;
- 11) Straddle with $\frac{1}{2}$ turn when jumping (straddle backwards).

V. Mounts and Dismounts.

The following exercises lead to the seat on croup, saddle or neck. The gymnastic riding-seat differs from the ordinary riding-seat by requiring the legs perfectly straight, but like it, requires firm grip of the horse with the thighs.

A. From standing position or rest.

- a. *With circle of leg from the outside (in front-vault-swing).*
- 1) Circle forwards with right leg to side-seat on right thigh on saddle, croup or neck (**Fig. 37**);
 - 2) The same with $\frac{1}{4}$ left turn to riding-seat;
 - 3) The same with $\frac{1}{2}$ left turn to side-seat on left thigh;
 - 4) The same as in No. 3 to side-seat on both thighs on near-side of horse, the circling leg making a complete circle.



Fig. 37.

b. With circle of leg from the inside (in rear-vault-swing).

- 1) Circle with right leg, passing under left hand to side-seat on right thigh on saddle, croup or neck (**Fig. 38**);
- 2) The same with $\frac{1}{4}$ left turn to riding-seat;
- 3) The same with $\frac{1}{2}$ left turn to side-seat on left thigh.



Fig. 38.



Fig. 39.

c. With circle of leg and turn of body at same time (in screw-vault-swing).

- 1) Circle backwards with left leg, making at the same time half left turn, to side-seat on right thigh on saddle, croup or neck (**Fig. 39**);

- 2) The same with $\frac{3}{4}$ left turn to riding-seat (screw-mount backwards);
- 3) The same with a full left turn to side-seat on left thigh.

B. From back-rest.

(Fig. 40.)

- a. *With circle of leg from the outside,*
 - b. *with circle of leg from the inside.*
- 1) Circle right leg backwards to side-seat on left thigh on saddle, croup or neck (Fig. 41);



Fig. 40.

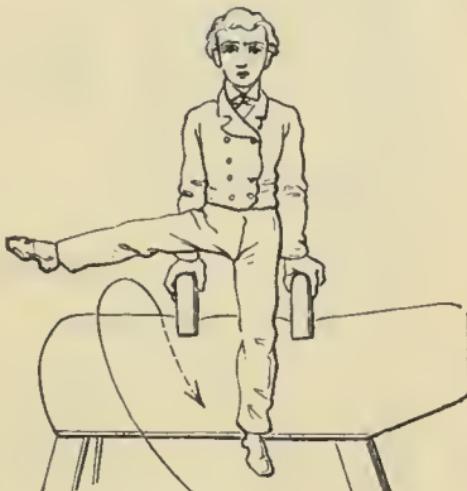


Fig. 41.

- 2) The same with $\frac{1}{4}$ turn to riding-seat;
- 3) The same with $\frac{1}{2}$ turn to side-seat on right thigh.

c. *With circle of leg and turn of body at the same time (forward screw).*

- 1) Circle right leg forwards to the inside and make half left turn to side-seat on right thigh on saddle, croup or neck (**Fig. 42**);
- 2) The same with $\frac{3}{4}$ left turn to riding-seat;
- 3) The same with a full left turn to side-seat on left thigh;
- 4) Exercise as in No. 3 and circle right leg forwards to side-seat on both thighs.



Fig. 42.

C. Dismounts.

From the side-seat on right thigh.

- 1) Circle right leg backwards from the outside;
- 2) The same from the inside;
- 3) Circle left leg forwards from the outside.

From the riding-seat.

- 1) Circle right leg forwards to standing position on near-side of horse;

- 2) Circle right leg backwards to the same; also dismount with $\frac{1}{4}$ or $\frac{1}{2}$ left or right turn and remount without touching the ground.

VI. Flank-vault Exercises.

A flank-vault is a swing over an apparatus in which the right or left side of the body is turned towards the upper side of it. No turn is made in any of the following exercises.

- 1) Jump up and swing right leg to the right side;
 - 2) Jump up and swing both legs to the right side;
 - 3) The same and place feet upon croup;

 - 4) Right flank-swing to side-leaning-rest on croup;
 - 5) Right flank-mount to side-seat on right or left thigh;
 - 6) Right flank-swing to side-seat on both thighs.
- Exercises Nos. 5 and 6 to seat on saddle, croup or neck.
- 7) Right flank-vault over horse (Fig. 43) with various grasps;

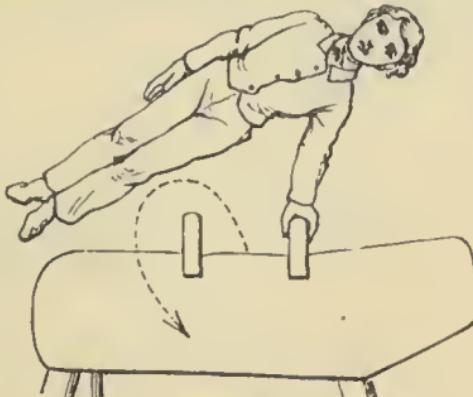


Fig. 43.

- 8) The same with a turn before alighting;
- 9) Flank-vaults from the back-rest with corresponding preliminary movements and turns;
- 10) Double-flank-vault with preliminary exercises.

VII. Front-vault Exercises.

The front-vault requires a backward-swing of legs and body, the face being kept towards the apparatus during the whole course of the vault.

- 1) Jump up, swing both legs to the right and as soon as they are as high as the horse, make $\frac{1}{4}$ left turn in the swing and alight without turning back again;
 - 2) The same, alighting with a turn, back to original position;
 - 3) Jump up with $\frac{1}{4}$ left turn to momentary front-vault position on croup;
-

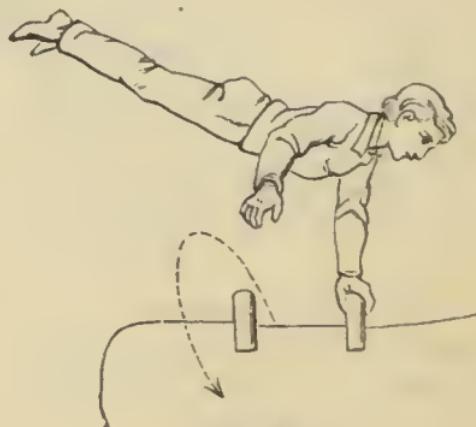


Fig. 44.

- 4) The same to front-leaning-rest on horse;
- 5) Front-vault-mount;
- 6) Right front-vault-swing to cross-seat on other side of horse.

Exercises Nos. 5) and 6) to seat on saddle, croup or neck;

- 7) Right front-vault (**Fig. 44**), alighting near hind-leg, saddle or front-leg;
- 8) Front-vault-swings, resting on one pommel or on saddle, croup or neck;
- 9) Front-vault, swinging legs up to the hand-balance.

VIII. Rear-vault Exercises.

The rear-vault is a swing forwards of both legs, the back being kept turned towards the apparatus during the vault.

- 1) Jump up and swing right leg to the left, in front of the left leg;
- 2) Jump up and swing both legs to the left and as soon as they are as high as the horse, make $\frac{1}{4}$ left turn in the swing and alight without turning back again;

- 3) Jump up with $\frac{1}{4}$ left turn, swing both legs forwards and alight turning back
 - a. to the original position ($\frac{1}{4}$ turn),
 - b. to the front-rest ($\frac{1}{4}$ turn),
 - c. to the cross-stand ($\frac{1}{2}$ turn).
 - d. to the cross-seat on left thigh ($\frac{1}{2}$ turn),
 - e. to the riding seat;
- 4) Jump up with $\frac{1}{4}$ left turn and lie along horse;

- 5) Right rear-vault-swing ($\frac{1}{4}$ left turn) to back-leaning-rest;
- 6) Rear-vault-mount;
- 7) Right rear-vault-swing to the cross-seat on left thigh on other side of horse.

Exercises Nos. 6 and 7 to seat on croup, saddle or neck.

- 8) Rear-vault over the horse (Fig. 45);
- 9) Double-rear-vault with corresponding preliminary exercises.

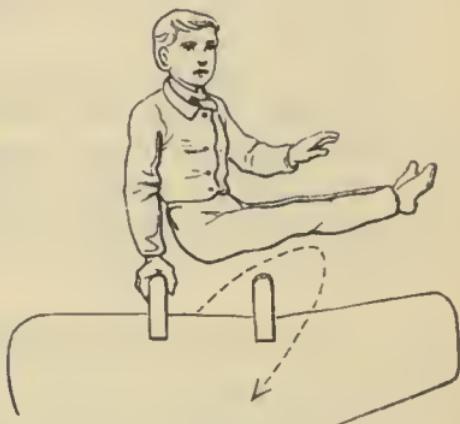


Fig. 45.

IX. Flank-, Front- and Rear-vault Exercises with additional turn of body.

These exercises consist of jumping up to flank-front- or rear-vault and a sharp turn when body is just above the horse.

- 1) Right flank-vault with $\frac{1}{4}$ left turn;
- 2) Right flank-vault with $\frac{1}{4}$ right turn;
- 3) Right front-vault with $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ or full left turn;
- 4) Right front-vault with $\frac{1}{2}$ right turn;
- 5) Right rear-vault with $\frac{1}{4}$ or $\frac{1}{2}$ left turn;
- 6) Right rear-vault with $(\frac{1}{4})$ $\frac{1}{2}$ right turn;

In addition to the above,

- 7) Right wolf-jump in flank-swing, $\frac{1}{4}$ left turn to front-vault position, close legs and alight;
- 8) The same with $\frac{1}{4}$ right turn to rear-vault position and alight.

X. Thief-jump Exercises.

The thief-jump is made from one foot only and the board must not be too near the horse. Whilst jumping, the hands support the body momentarily by grasping the pommels.

- 1) Jump from right leg and kneel on left knee;
- 2) The same and kneel on both knees;
- 3) The same and squat with left leg;
- 4) The same and squat with both legs;

- 5) The same and stand erect on left leg, the right leg extended backwards;
- 6) The same with $\frac{1}{2}$ turn and immediate jump forwards;
- 7) Jump up and stand on both legs;
- 8) Thief-jump from right leg to side-seat on left thigh;
- 9) The same to seat with $\frac{1}{4}$ or $\frac{1}{2}$ turn;
- 10) Thief-jump over the horse (**Fig. 46**);
- 11) The same with help of one hand only;
- 12) The same with turn just before alighting;
- 13) The same to lying position across the saddle;

- 14) With oblique run thief-jump to riding-seat;
- 15) The same over the horse; in jumping from left foot, the right side of body is nearest the horse and after clearing it, the left hand grasps pommel;
- 16) Jump as in No. 14 without help of hands;
- 17) Jump as in No. 10 without help of hands (free jump).



Fig. 46.

XI. Feint Exercises with or without alighting.

Whenever the right leg is swung round the right arm to the other side of the horse and immediately swung back again, the movement is called a feint. (Fig. 47 and 48.) It can also be done with both legs together.

a.

Feint exercises from the front-rest.

- 1) Feint of right leg with left front-vault-mount to saddle, croup or neck;
- 2) The same with suitable turns in mounting;
- 3) Feint of right leg and rear-vault-mount to croup, saddle or neck;
- 4) The same with suitable turns in mounting;

5) Feint of right leg and left screw-mount. At this point the mounting and dismounting exercises of group V will become useful;

6) Feint of right leg and flank-rear-front-or squatting-vault, wolf-jump over neck, straddle, somersault &c.



Fig. 47.

b.

Similar exercises from the back-rest.

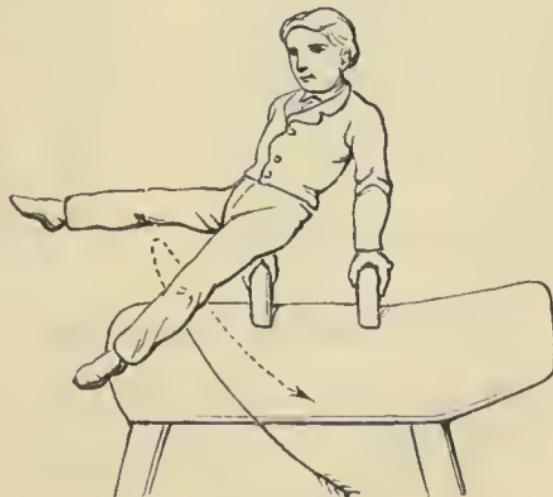


Fig. 48.

XII. Somersaults.

In somersaults the arms are held

- a. bent throughout,
- b. at first straight and then bent,
- c. at first bent and then straightened (**Fig. 49**),
- d. straight throughout.

As a rule, the head does not touch the horse at all, but the upper portion of the forehead or the neck may sometimes do so.

The somersault may be started

- 1) from kneeling position,
- 2) from squatting position on one or both legs,
- 3) from standing in erect position on horse,
- 4) with a run,
- 5) from standing position in front of horse,
- 6) from riding-seat on horse,
- 7) from lever on one elbow.



Fig. 49.

XIII. Various Exercises.

- 1) The Needle with a $\frac{3}{4}$ left turn (**Fig. 50.**)

Preliminary: jump to squatting position and with $\frac{1}{2}$ left turn place right foot on to saddle and left on to croup;

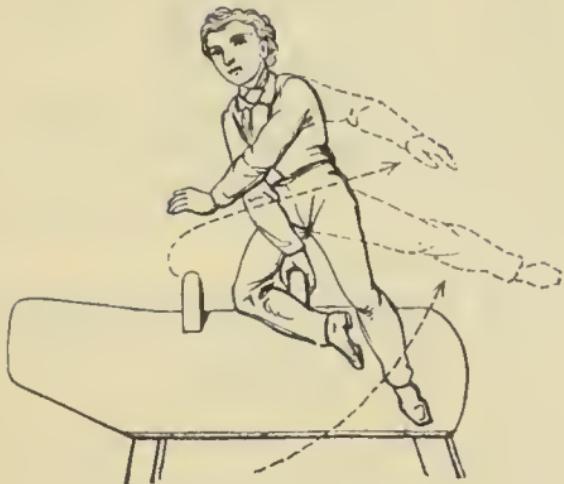


Fig. 50.

- 2) Pike-jump
(Fig. 51):
- with grasp first on pommels and then on shoulders of person catching,
 - without grasp of pommels;
- 3) Squatting-vault over horse, grasping hands of two pupils, who sit face to face in riding-seat on horse;



Fig. 51.

- 4) Straddle - vault over one or more pupils placed on either side of horse, resting hands on their shoulders;
- 5) Jumps with rest of one hand on horse and other on leg of same;
- 6) Rolls forwards or backwards over horse;
- 7) Levers
 - a. on both elbows,
 - b. on one elbow, the other hand either free or grasping pommel,
 - c. change from one elbow to the other,
 - d. between arms without touching elbows;
- 8) Lever with turn;
- 9) Combination of horse and buck or of two horses with suitable exercises for the same.

XIV. Exercises by two or more at a time.

In these exercises two or three pupils run together towards the horse, one jumping over the neck, another over the croup and another over the saddle. The exercises can be squatting-vault, squat to kneeling position and knee-jump off, squat to standing position on horse and off, squat to seat and roll over or squat backwards, thief-jump, somersault.

The following are for exercises in pairs:
 Front-vault-mount and swing off backwards;
 Rear-vault-mount and straddle off;
 Serew-vault-mount and straddle off;
 Front-, flank- or serew-vault;
 Rear-vault, also with inside turn;
 Wolf-jump;

Squat over with inside leg and off with circle forwards of outside leg;
Squat with $\frac{1}{4}$ turn to squatting position on horse and off with straddle or somersault;
Squat to standing position on horse and off forwards;
Squatting-vault, knee-jump, somersault &c.

B. EXERCISES WITH HORSE LENGTHWAYS.

In jumping over the horse lengthways, the run and jump are from the rear. The board lies generally just behind the horse, but in many exercises it can be placed near the side or obliquely. As a rule the pommels are removed.

I. Jumps lengthways.

- 1) Jump to riding-seat on croup;
- 2) The same, gradually withdrawing the board from the horse;
- 3) Jump to riding-seat on saddle and then on neck, first from board near the horse and then as a long-jump;

- 4) Jump to balance-rest on croup, saddle or neck;
- 5) Walk or hop along the horse in the balance-rest;
- 6) Jump to squatting or standing position on croup, drop down to riding-seat on saddle, or with help of hands to neck;

- 7) Jump to squatting or standing position on horse, drop forwards to front-leaning-rest and straddle off;
- 8) Jump to standing position on horse and straddle off forwards without help of hands;
- 9) Jump to front-leaning-rest on horse and straddle off forwards;
- 10) Giant-leap over horse with several rests of hands from croup to neck, or only one rest on croup or neck (**Fig. 52**);

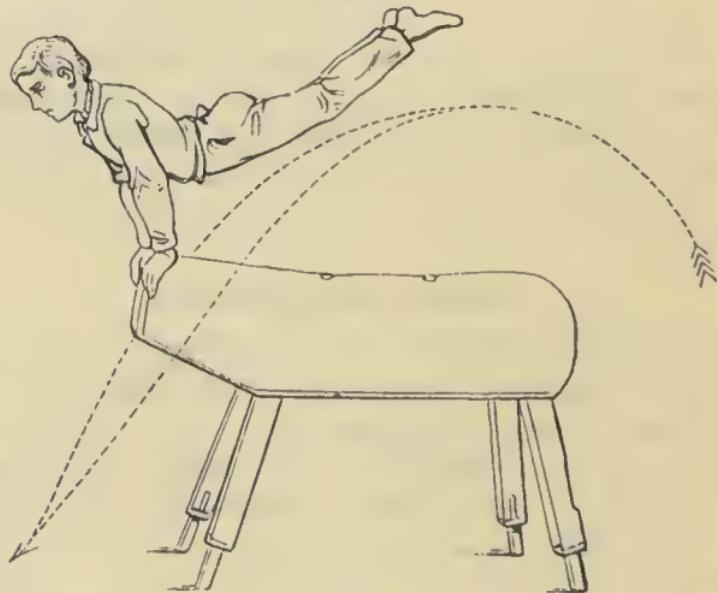


Fig. 52.

- 11) Giant-leap with $\frac{1}{4}$ turn (giant-leap sideways **Fig. 53**), also with $\frac{1}{2}$ turn (backwards) The same with corresponding preliminary exercises (see buck-jump V, a; jumps with turns).

- 12) Giant-leap, with or without turn and rest of one hand only.

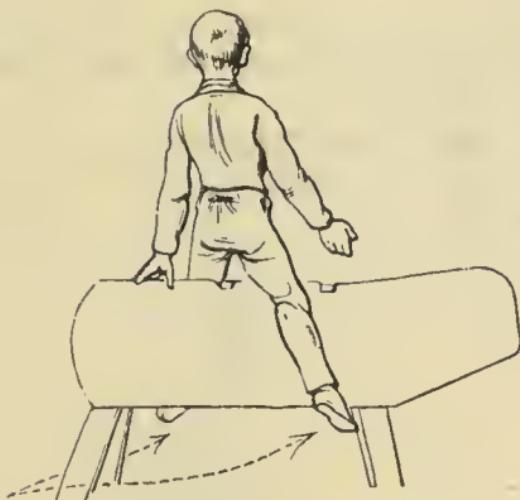


Fig. 53.

II. Squatting Exercises.

- 1) Jump and kneel on one knee, free leg raised backwards up and body bent forward;
- 2) Jump and kneel on both knees;
- 3) Kneel on one or both knees, drop to riding-seat or cross-seat on one thigh and back to kneeling position;
- 4) The same exercises from squatting position;
- 5) Jump and squat with one or both legs on croup. Here free leg can also be extended forwards;
- 6) Change legs whilst in squatting position with backswing of free leg, on spot or with

travelling forwards or backwards, with help of hands;

- 7) Jump and squat with one or both legs on saddle, lean forward on hands and then squat over neck;
- 8) Jump and squat with one or both legs on neck, rise to erect position and jump off forwards;

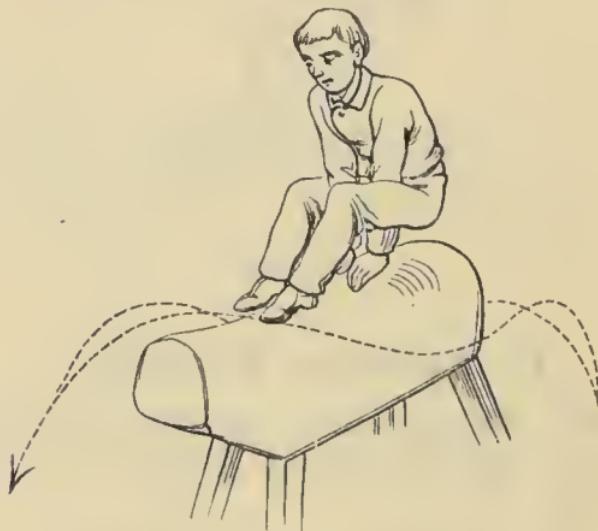


Fig. 54.

- 9) Jump over horse with one or both legs held in squatting position;
 - 10) Squatting-vault to stand at side of horse;
 - 11) Squat to riding-seat on croup, saddle or neck;
 - 12) Squat through arms to back-leanings-
- rest;

- 13) The same and scissors-mount to riding-seat;
- 14) Jump up and squat with one or both legs beyond hands on croup, saddle or neck (cat-jump);
- 15) Clear cat-jump over horse (**Fig. 54**).

III. Leg circling Exercises.

- 1) Jump up, swing right leg to the right side and back again to starting position;
- 2) The same and place right leg on croup, the left leg hanging against left side of horse;

- 3) The same and circle right leg over horse to cross-seat on right thigh (see Fig. 28) on croup, saddle or neck;
- 4) The same to the stand at left side of horse (**Fig. 55**);
- 5) The same with $\frac{1}{4}$ or $\frac{1}{2}$ left turn to the stand at side of horse;
- 6) The same with $\frac{1}{4}$ right turn to front-rest on left side of horse;
- 7) The same with $\frac{1}{2}$ right turn to cross-seat on left thigh;

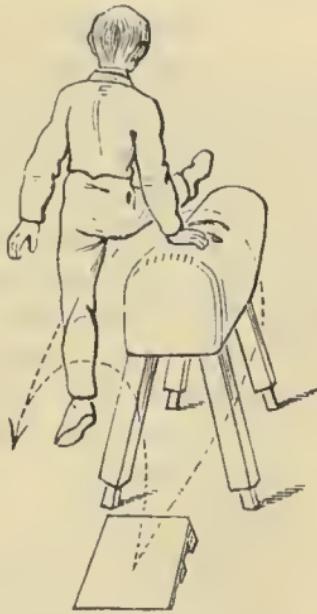


Fig. 55.

- 8) Jump with straddle to back-leaning or lying position on horse;
- 9) The same with $\frac{1}{4}$ turn to side-leaning-rest;
- 10) Scissors-mount.

The exercises of groups I, II and III can be varied by placing the board to the right or left of the horse, instead of behind it. It can also be placed at the hind-feet, fore-feet or between them, the direction of the run remaining unaltered. — All jumps are to be practised first over croup, then over saddle and finally over neck.

IV. Rear-vault Exercises.

The rear-vault over end of horse is practised with a jump from both feet and rest on one or both hands, also with jump from one foot and rest on one hand, the last being called a fencing-jump.

- 1) Jump to left side of horse with forward-swing of both legs;
- 2) The same to cross-seat on right thigh, in front of hands;
- 3) The same to riding-seat;

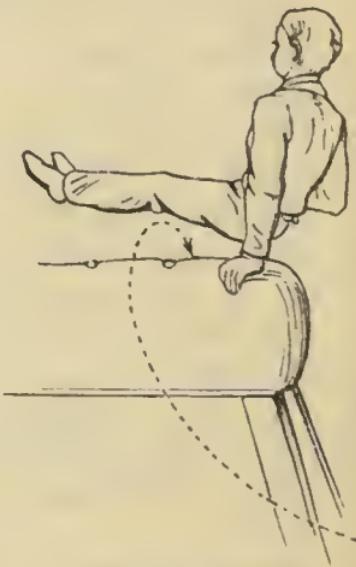


Fig. 56.

- 4) The same to back-leaning-rest on horse;
- 5) The same to cross-seat on left thigh (on right side of horse);
- 6) Right rear-vault over horse (**Fig. 56**);
- 7) The same with $\frac{1}{2}$ right turn before alighting;
- 8) The same with $\frac{1}{4}$ and $\frac{1}{2}$ left turn before alighting;
- 9) The same and mount to side-seat on one thigh, or to riding-seat.

These exercises are more difficult when practised at the saddle and neck.

V. Flank-vault Exercises.

These exercises can be practised with jump from both feet or with fencing-jump.

- 1) Jump with forward swing of both legs along the right side of the horse and as soon as they are at the height of the horse, make $\frac{1}{4}$ left turn in the swing and alight, facing the horse;
- 2) Jump to the front-rest on right side of horse;
- 3) The same with right leg extended on neck;

- 4) Flank-mount right to side-seat on left thigh (or right thigh, two exercises);
- 5) Flank-swing to side-leaning-rest on horse;
- 6) Flank-swing over the horse to side-seat on both thighs;

- 7) Flank-vault over horse (Fig. 57);
- 8) Flank-vault with turns before alighting.
To be practised over croup, saddle or neck.

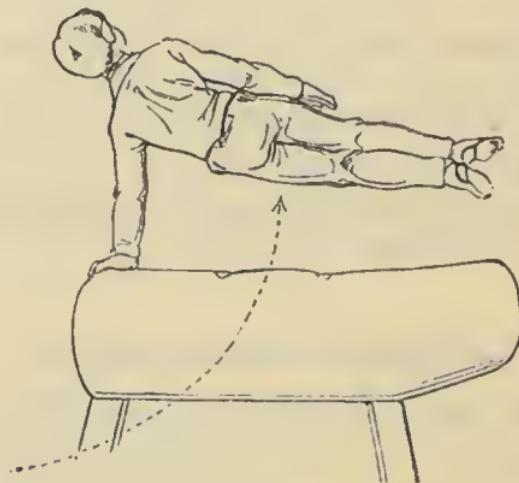


Fig. 57.

VI. Front-vault Exercises.

To be practised with one or both feet and rest on both hands.

- 1) Jump along right side of horse, make $\frac{1}{2}$ left turn, swing legs backwards and alight to cross-stand at right side of horse;
- 2) The same to cross-seat on right thigh;
- 3) Front-vault-mount (riding-seat);
- 4) Front-vault-swing to front-leaning-rest on horse;
- 5) The same to cross-seat on left thigh;

- 6) Front-vault over horse (**Fig. 58**);
- 7) The same with turns before alighting;

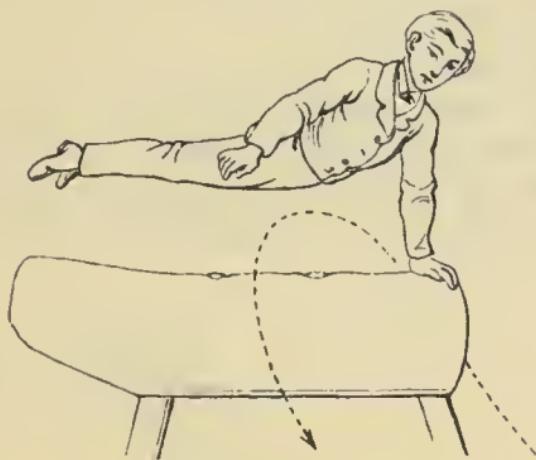


Fig. 58.

- S) Front-vault-swing to balance-rest on horse;
- 9) Front-vault-swing and straddle forwards over croup back to board without break of swing;
- 10) Front-vault over croup back to board;
- 11) Front-vault-mount right with $\frac{3}{4}$ left turn to side-seat on left thigh;
- 12) The same to side-seat on both thighs;
- 13) Screw-vault-mount to riding-seat or to cross-seat on one thigh;
- 14) Screw-vault over horse.

All of the above exercises to be practised at croup, saddle and neck.

VII. Screw-vault-mount Exercises.

- 1) Jump with $\frac{1}{2}$ left turn to cross-rest on right side of horse;
- 2) The same with backward circle of left leg over horse and a further $\frac{1}{4}$ left turn to side-seat on right thigh;
- 3) Same as No. 1 and further $\frac{1}{2}$ left turn to riding-seat (**Fig. 59**);

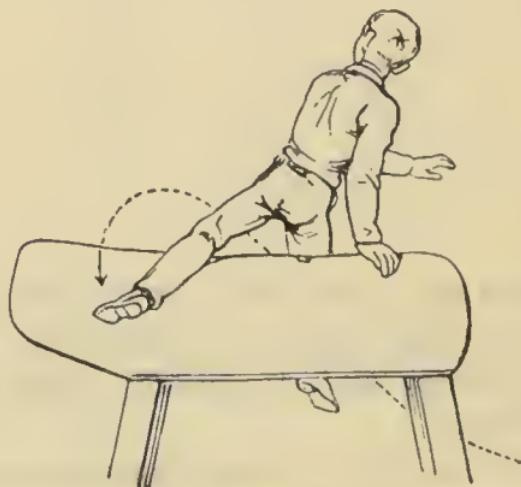


Fig. 59.

- 4) Same as No. 1 and further $\frac{3}{4}$ left turn to side-seat on left thigh;
To be practised on to croup, saddle and neck.

VIII. Shears or Scissors Exercises.

a. With back-swing.

From riding-seat on horse.

- 1) Swing legs backwards up to front-leaning-rest;
- 2) Swing legs backwards up, close them, and down again to riding-seat;
- 3) Swing legs backwards up and cross them (back-scissors);

- 4) Back-scissors with $\frac{1}{4}$ left turn to side-seat on left thigh;
- 5) The same with $\frac{1}{2}$ left turn to riding-seat (**Fig. 60**);

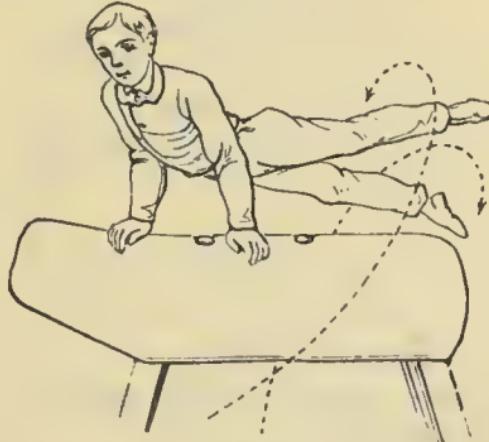


Fig. 60.

- 6) The same with $\frac{3}{4}$ left turn to side-seat on one thigh;
- 7) Repetition of above exercises with a run and jump
 - a. to seat on croup, saddle or neck,
 - b. over the horse.

b. With front-swing

from riding-seat on horse.

- 1) Swing legs forwards up to back-leaning-rest;
- 2) Swing legs forwards up, close them and back to seat again;
- 3) The same, crossing legs (front-scissors);

- 4) Front-scissors with $\frac{1}{4}$ left turn to side-seat on right thigh;
- 5) The same with $\frac{1}{2}$ left turn to riding-seat (Fig. 61);

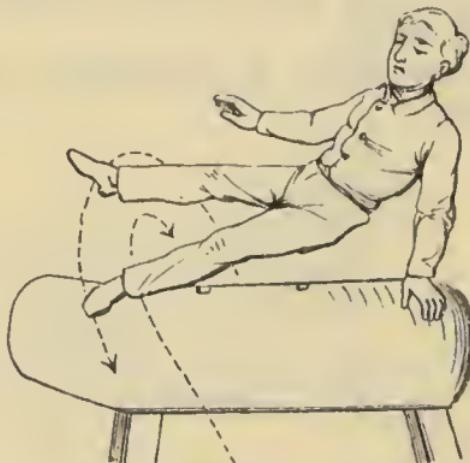


Fig. 61.

- 6) The same with $\frac{3}{4}$ left turn to side-seat on left thigh;
- 7) Repetition of the above exercises from the ground (front-scissors-mounts);
- 8) Rear-vault-mount to the right with $\frac{1}{2}$ left turn to riding-seat;
- 9) Squat and mount with front-scissors;
- 10) Clear jump over horse with scissors movement.

IX. Various Exercises.

- 1) Roll forwards from squatting position on horse to riding-seat;
- 2) The same to cross-seat with closed legs on one side of the horse;
- 3) Exercises as in Nos. 1) and 2) with a run;
- 4) Roll forwards from end of horse, down to the stand beyond it (**Fig. 62**);

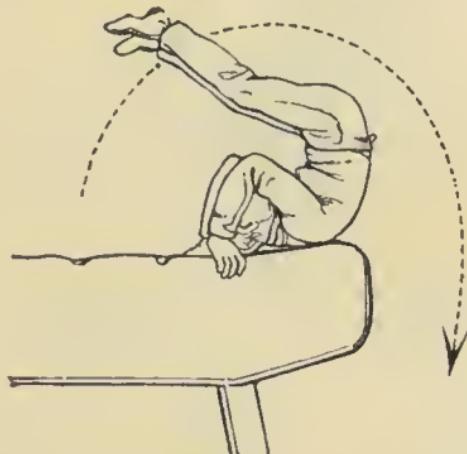


Fig. 62.

- 5) Jump up to rest and arch the back, points of toes touching end of horse;
- 6) Jump to shoulder-balance;
- 7) Somersault obliquely from shoulder-balance (bear-roll);
- 8) The same without shoulders touching horse;
- 9) Somersault from riding-seat on neck;
- 10) Somersault from front-straddle position on horse;
- 11) Somersault sideways from side-straddle position on horse;

- 12) Ordinary somersault over horse;
- 13) Ordinary jump over horse;
- 14) Roll backwards from horse to the stand on ground (**Fig. 63**);



Fig. 63.

- 15) Jumps on and over the horse with various objects placed upon it; also with jumping-rope in front;
- 16) Jumps on and over a horse of which either the front- or hind-legs have been lengthened;
- 17) Combinations of
 - a. horse and buck, one behind the other,
 - b. horse and horse, parallel to each other or placed at an angle,
 - c. horse and horizontal bar &c.

PARALLEL BARS.

Apparatus: Two or more parallel bars, the height of which should be about that of chest or shoulder, the width between them being about the medium shoulder breadth of those exercising.

I. Exercises in the Rest.

- 1) From cross-stand at end of bars, jump up into rest 4 to 6 times consecutively;
- 2) Jump to rest (**Fig. 64**) and
 - a. arch the back,
 - b. turn the body (two pupils may practise this together, resting back to back),
 - c. raise one or both heels, kicking thighs,
 - d. raise knees to chest,
 - e. raise one or both legs with one or more swings,
 - f. raise one leg sideways, also from oblique rest between bars,
 - g. raise knee or leg forwards or sideways over bar and move it to and fro,

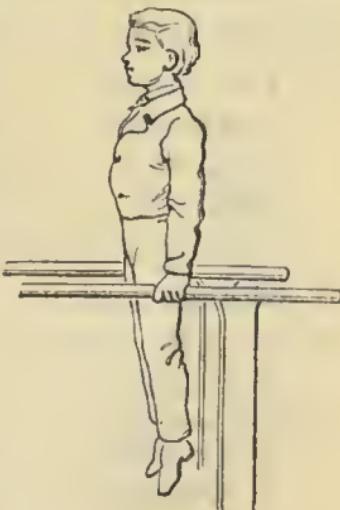


Fig. 64.

- h. the same with both legs together,
 - i. open and close legs over bars in front of hands;
- 3) Exercises in No. 2) continuously along the whole length of bars.

II. Travelling Exercises.

Walking and hopping on hands.

- 1) In rest, lift hand momentarily from bar, even so far as to touch chest;
- 2) The same alternately right and left (beating time);
- 3) The same several times in succession with each hand;
- 4) Hop with both hands on spot;
- 5) The same on both or alternate hands with movements of corresponding or opposite legs, such as raising of heels, knees or legs (straight, straddled or crossed) or also with legs held in any of those positions;
- 6) Change grasp;
- 7) In rest, rise from ordinary grasp to grasp of thumb and first finger;

- 8) Walk or hop forwards or backwards with or without leg movements as in No. 5);
- 9) Walk obliquely along bars;
- 10) Change with $\frac{1}{4}$ turn from cross-rest to front- or back-rest on one bar and back again to cross-rest,

- a. with turns contrary to each other (on spot),
 - b. with repeated turns in the same direction (on spot),
 - c. with travelling along the bars (waltzing movement);
- 11) Change of rest with $\frac{1}{2}$ turn from oblique- or cross-rest to cross-rest, or from side-rest to side-rest, firstly by moving hands quickly one after the other and finally both together.

III. Seats.

a.

From cross-stand at end of bars and with forward swing of right leg between bars, jump up

- 1) To inside cross-seat on right bar in front of right hand (**Fig. 65**),



Fig. 65.

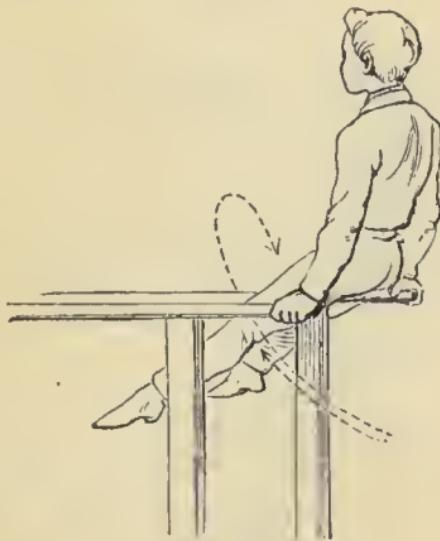


Fig. 66.

- 2) To riding-seat on right bar in front of right hand (**Fig. 66**),
- 3) With $\frac{1}{4}$ left turn to side-seat on left bar, in front of left hand (**Fig. 67**),

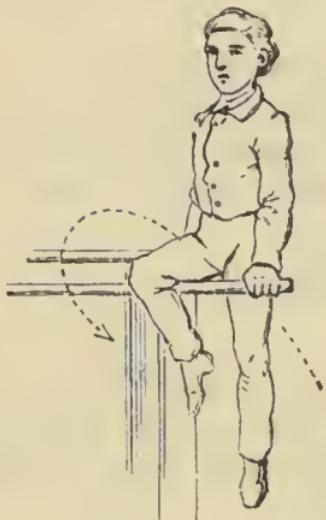


Fig. 67.



Fig. 68.

- 4) With $\frac{1}{2}$ left turn to riding-seat on left bar, hands shifting grasp one after the other,
- 5) With $\frac{1}{4}$ right turn to side-seat on right thigh in front of right hand, the left hand shifting grasp to the right bar (**Fig. 68**).

b.

From cross-stand at end of bars swing both legs forwards between bars and jump up

- 1) To outside-cross-seat on right bar in front of right hand (**Fig. 69**);

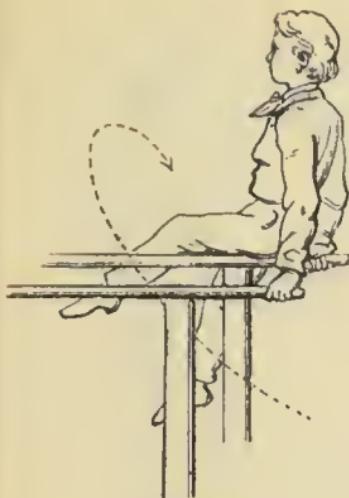


Fig. 69.

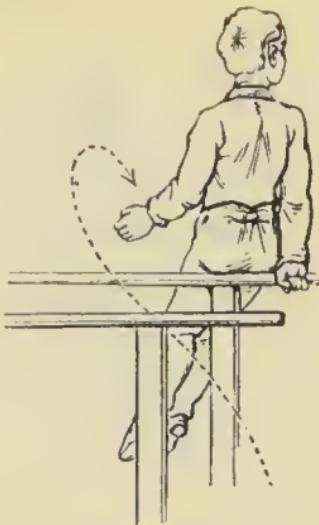


Fig. 70.

- 2) The same with $\frac{1}{4}$ right turn to outside-side-seat (**Fig. 70**) the left hand quitting bar;
- 3) As in No. 1 and $\frac{1}{2}$ right turn; the right hand quitting bar (**Fig. 71**);



Fig. 71.



Fig. 72.

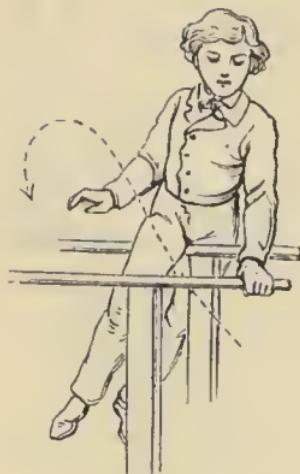


Fig. 73.

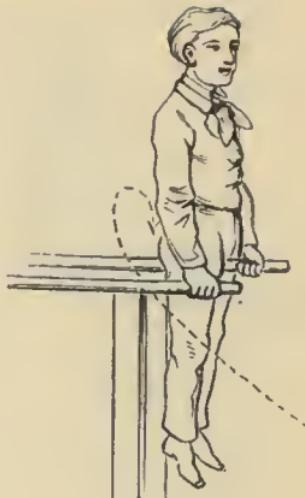


Fig. 74.

- 4) To cross-seat with crossed legs in front of right hand (right leg over left) (Fig. 72);
- 5) The same as in No. 4 with $\frac{1}{4}$ left turn to side-seat on right thigh (Fig. 73);



Fig. 75.

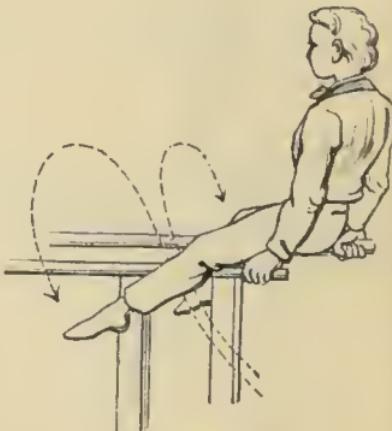


Fig. 76.

- 6) The same as in No. 5 with a further $\frac{1}{4}$ left turn to riding-seat on right bar (**Fig. 74**);
- 7) The same as in No. 1 with $\frac{1}{2}$ left or right turn, hands quitting grasp directly the legs are over the bar (**Fig. 75**).

c.

From cross-stand at end of bars jump up, swing both legs forwards and open them over the bars

- 1) To straddle-seat across both bars in front of hands (**Fig. 76**);
- 2) With $\frac{1}{4}$ left turn to front-straddle across both bars,
 - a. left leg in front (**Fig. 77**),
 - b. right leg in front (**Fig. 78**);



Fig. 77.

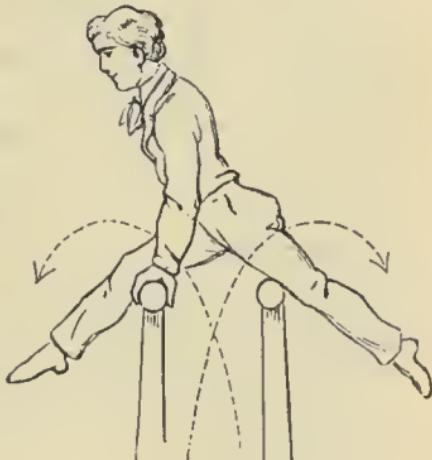


Fig. 78.

- 3) With $\frac{1}{2}$ left turn to straddle-seat (**Fig. 79**). (Scissors-mount.)

Instead of swinging both legs up between the bars, these exercises can be practised 1) with swing of one leg outside and one between bars, 2) with crossed legs, in which case the leg is swung over the opposite bar either in front or behind the other leg, 3) with straddle of legs over both bars, the two latter series being the most difficult of execution.

d.

Exercises of groups a, b and c can also be practised from between the middle of the bars with or without turn of body, also to seat behind as well as in front of hands, simply substituting in the instruction the words "*behind the hands*" for "*in front of hands*". For the latter group, the positions are the same as shown in Figures 65—79 excepting that the grasps are to be considered as being in front of body instead of behind.

After swinging on to the bars, the alighting takes place

- a. by jumping down to the side or between the bars in the easiest way, or
- b. by swinging back to ordinary rest and jumping down forwards or backwards.



Fig. 79.

IV. Changes of Seat.

a.

A change of seat takes place either with or without intermediate swing. In the latter case the following are the best:

- a. From seat in front of right hand swing over to seat in front of left hand and vice versa;
- b. The same from seat behind hands;
- c. From seat in front of right hand to seat behind right hand or reverse (half-moon-swing);
- d. From seat in front of hand on one bar to seat behind hand on the other bar (snake-swing);
- e. Lastly, change from one kind of seat to another, on one or both bars, or combinations of the same.

These changes of seat can be varied by making the swing higher or lower.

b.

All changes of seat, without exception, can be made with a movement forwards or backwards along the bars, either before the swing or during the swing (travelling exercises).

The following belong to the first series.

- 1) Travel in inside-cross-seat (see Fig. 65); hands grasp forwards or backwards and the body is swung forwards or backwards into the same seat on the same bar or

alternately from one bar to the other, or with alighting between bars after each seat. This gives 8 forms of inside-cross-seat with travelling.

- a. With half-moon-swing forwards without alighting;
- b. The same backwards;
- c. With snake-swing forwards;
- d. The same backwards;
- e. f. g. h. the same with alighting;
- 2) Travel in riding-seat (see Fig. 66), a to d, also e to f, same as in No. 1;
- 3) Travel in outside-cross-seat (see Fig. 69) a to d, also e to f the same as in No. 1;
- 4) Travel in straddle-seat across both bars (see Fig. 76). The legs must be kept perfectly straight and the body raised as high as possible,
 - a. forwards,
 - b. backwards;

- 5) Travel in outside-cross-seat (see Fig. 69) making two consecutive $\frac{1}{2}$ turns right or left, the legs remaining outside the bars and hands grasping the clear bar;
- 6) Travel in front-straddle across both bars (Fig. 77 and 78),
 - a. forwards with alternate $\frac{1}{2}$ right and left turn and forward circle of leg;
 - b. The same backwards (backwards circle of leg).

c.

A. When a change of seat is made by crossing legs and a quick $\frac{1}{2}$ turn of body, it is called a scissors movement.

The seat from which it may be started and in which it may end are as follows:

- a. straddle-seat,
- b. riding-seat on right bar,
- c. riding-seat on left bar.

The turn in the scissors movement must be practised to the right as well as to the left, forwards and backwards. By practising all the various scissors from the various seats to the various seats, both forwards and backwards, we have 18 forms of this series and by counting them with various swings from the seat and various grasps of hands, one arrives at a total of about 432 variations viz:

A. Scissors from seat behind the hands, swinging legs backwards up,

- 1) With one hand on each bar, 18 exercises;
- 2) With both hands on either right or left bar, 36 exercises;
- 3) With only one hand on either right or left bar, 72 exercises.

B. The same exercises forwards from seat in front of hands.

Nos. 1, 2 and 3 the same as in A, making the same number of exercises.

In group No. 3 only a few are suitable for practice.

C. Back-scissors, starting from seat in front of hands.

Nos. 1 and 2 the same as in B.

We may here remark that the 36 exercises under No. 2 vary so much from the style of the majority of the scissors movements that they should be practised further on, say in Class XII. — But as regards C. No. 1 we can make numerous changes by having the various grasps and swings in

- I. straight-arm-rest,
- II. bent-arm-rest,
- III. elbow-rest.

This trebles the 18 exercises of No. 1.

D. Front-scissors, starting from seat behind hands, all being practised same as in C.

B. Scissors without turn of body (crossing of legs only);

- a. From inside-side-rest on one bar,
 - 1) Swing right leg over bar to the right side, outside of right hand;
 - 2) To left side, outside of left hand;
 - 3) From balance-rest between hands, swing leg to the right and left and pass under right and left hand
 - a. to seat on the same bar,
 - b. to seat on the other bar (12 exercises).
- b. From outside-side-seat on one thigh with grasp of
 - 1) both hands on behind bar,
 - 2) one hand on each bar, with a swing up to the same side as front hand,

- a. to seat on the same bar,
- b. to seat on the other (12 exercises).

Compare also group XI, g. on page 116.

d.

Changes of seat without help of hands.

- 1) Change from outside-cross-seat on right bar to the same seat on left bar, by straddling left leg over both bars and following with the right leg;
- 2) Change from outside-cross-seat to inside-cross-seat on the same bar
 - a. by swinging one leg after the other over the bar,
 - b. or both legs together;
- 3) Change from cross-seat with crossed legs (Fig. 72) to riding-seat (Fig. 66) with $\frac{1}{2}$ right turn if the left leg is above the right;
- 4) Changes of cross-seat inside the bars.

V. Swinging Exercises in the rest.

Swinging in the rest should not be practised too high, certainly not before the swings to seat have been well practised.

a.

- 1) Swing in rest with closed legs (Fig. 80 and 81);
- 2) Swing and straddle legs over bars at end of front- or back-swing or both, also several times in each swing;

- 3) The same and side-straddle of legs under bars in the middle of the swing;

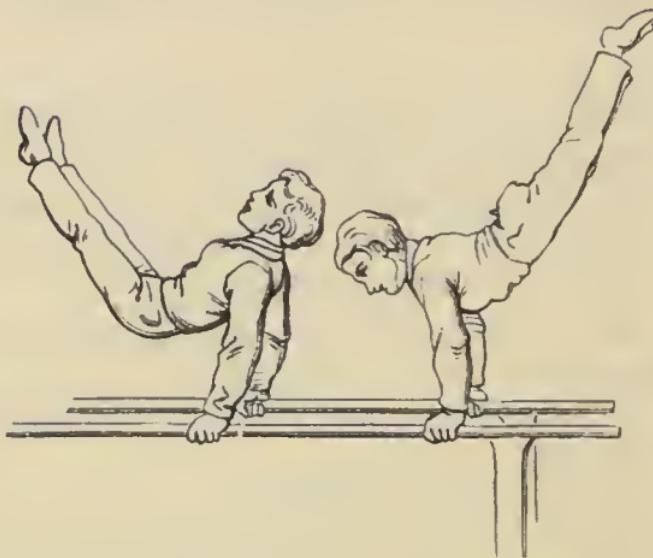


Fig. 81.

Fig. 80.

- 4) Momentary front-straddle of legs at end of front-or back-swing by swinging one leg forwards and the other backwards;
- 5) Hold legs in front-straddle during swing and reverse them at end of front- or back-swing or at end of both;
- 6) Swing with momentary crossing of legs;
- 7) Swing with sudden stop
- at end of back-swing and momentary hand-balance with bending and straightening of knees (**Fig. 82**),
 - at end of front-swing, holding legs in front-lever, either closed or straddled,
 - in the middle of the swing;

- 8) Swing with body and limbs kept perfectly straight;
- 9) Swing and raise one or both heels in back-swing;
- 10) Swing and raise one or both knees in front-and back-swing;
- 11) Combinations of the above 10 exercises.



Fig. 82.

b.

- 1) Swing and lift hands alternately;
- 2) The same, both hands together (hopping);
- 3) Same as in Nos. 1 and 2, raising arms forwards, backwards &c., striking chest, clapping hands, touching feet at end of front-and back-swing &c.;
- 4) The same as in No. 1 with forward-travel;
- 5) The same backwards;
- 6) Swing and hop forwards with each front-swing;
- 7) The same backwards with each back-swing;
- 8) Swing and hop forwards with each back-swing;
- 9) Swing and hop backwards with each front-swing;
- 10) Swing and hop forwards with each front-and back-swing;
- 11) Swing and hop backwards with each front-and back-swing;

- 12) Swing and hop
 - a. forwards, with the front-swing and backwards with the back-swing,
 - b. backwards with the front-swing and forwards with the back-swing;
- 13) Exercises No. 1) to 10) with a double hop at each swing.

c.

With a run, jump up to rest at end of bars, hop and swing to a seat or off over the whole length of bars.

VI. Leanings-rest Exercises.

a.

Swing in the rest and

- 1) Place one or both legs on one bar or one leg on each bar (front-leaning-rest) (**Fig. 83**);

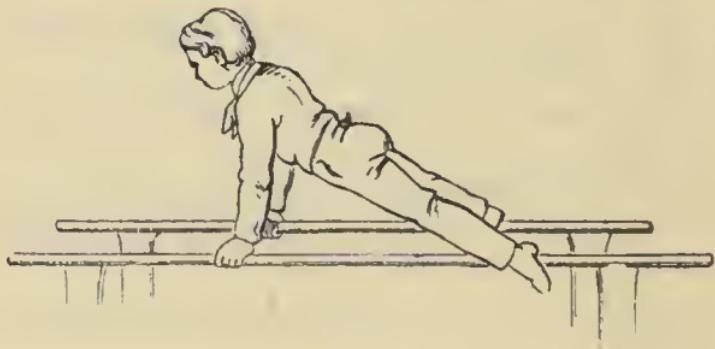


Fig. 83.

- 2) The same with legs in front of hands (back-leaning-rest) (**Fig. 84**);

- 3) Change from front-to back-leaning-rest or reverse;

- 4) Raise one arm forwards or sideways whilst in leaning-rest;
- 5) The same with one leg;

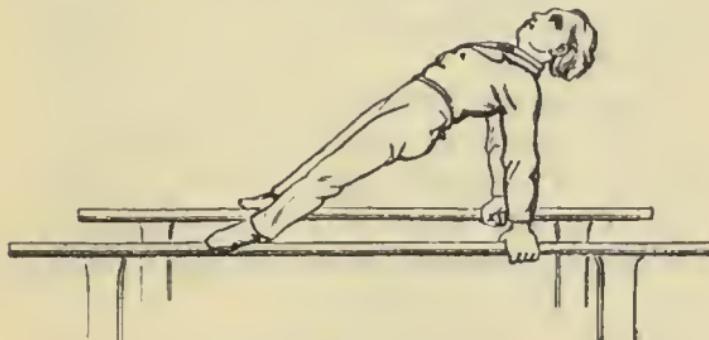


Fig. 84.

- 6) The same with one arm and one leg (left arm and right leg);
- 7) The same and travel on or from spot,
 - a. one hand after the other, each keeping to its respective bar,
 - b. changing from one bar to the other;

- 8) The same with hopping;
- 9) In the leaning-rest push and pull feet along bars until body and arms are in a straight line, keeping arms quite straight.

b.

Swing in rest to squatting position at end of back-swing,

- 1) The right leg on right bar behind the right hand;

- 2) One foot on each bar (**Fig. 85**);
- 3) From position in No. 2 push legs backwards and recover to squatting position;
- 4) Swing up into squatting position with both feet on right bar;
- 5) The same with left leg on right bar.

The free leg in Nos. 1 and 5 remains either inside or outside the bar (**Fig. 86** and **87**);

- 6) Swing up with $\frac{1}{4}$ left turn into squatting position, both feet on right bar;
- 7) Nos. 5 and 6 with front-vault-swing from one bar to the other;



Fig. 85.

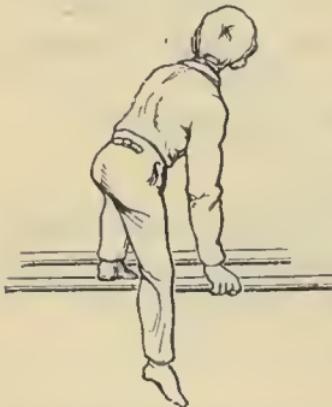


Fig. 86.

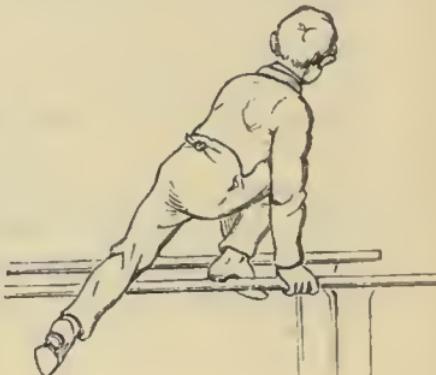


Fig. 87.

- 8) Swing right leg round the right arm and squat with right foot in front of right

hand, the left leg being held extended outside of bars or on right bar behind right hand.

c.

Swings in rest with kneeling.

- 1) Swing backwards and kneel on bars with one or both knees.

The kneeling can be done either just below the kneecap or upon the instep, the hands maintaining their grasp. The kneeling takes place

- a. with right leg behind right hand, knee outside and foot inside of bars or vice versa, the left leg being held straight down between the bars or extended backwards or else either straight or bent with foot upon one of the bars,
- b. change from right to left without intermediate swing,
- c. with both legs behind right hand, feet outside the bars,
- d. the same, changing from right to left without intermediate swing,
- e. with both legs, one behind each hand, the feet either inside or outside the bars,
- f. with $\frac{1}{4}$ left turn, right leg on right side and left leg on left side of right hand, feet outside,
- g. the same, changing from right to left without intermediate swing,
- h. with one leg on one bar and $\frac{1}{2}$ circle of other leg over the other bar;

- 2) Swing in rest and kneel at end of front-swing, one leg on each bar, knees outside and feet inside, hands changing grasp from back to front. Also with travelling;
- 3) Kneel on bars without help of hands and spring off into rest, to arm-hang or to stand between bars;
- 4) Kneel on one bar only, feet inside and knees outside (from the rest) and spring off obliquely forwards, alighting near the bar.

d.

- 1) Swing from a seat in front of hands to front-leaning or squatting position;
- 2) Swing from a seat behind hands to back-leaning-rest;
- 3) Swing from back-leaning-rest to a seat in front of hands and vice versa
 - a. with intermediate swing,
 - b. without;
- 4) Swing from front-leaning or squatting position to a seat behind hands and vice versa
 - a. without intermediate swing,
 - b. with intermediate swing.

The swings with turn of body should also be practised.

VII. Exercises in the Bent-arm-rest.

All of the foregoing exercises which have been set in "rest" may also be practised in bent-arm-rest (**Fig. 88**) when the strength of

the pupil admits of it. A too frequent or too long a practice of this group must be avoided by beginners.

The difficulty increases gradually in the following groups.

- 1) Bend and straighten arms whilst in leaning-rest. Commence on a pair of low bars, the feet resting upon the ground;
- 2) Drop down from rest to bent-arm-rest and off;
- 3) Remain in bent-arm-rest with or without leg movements;
- 4) Rise from bent-arm-rest to rest;

- 5) Moderate swing in bent-arm-rest;
- 6) Change of seat with intermediate bent-arm-swing;
- 7) Walk or hop with moderate bent-arm-swing;
- 8) The same without a swing in bent-arm-rest;
- 9) Swing from rest with bent-arm-swing to rest again (pump-swing), the bending of arms taking place as follows:
 - a. at end of back-swing (**Fig. 89**).
 - b. at end of front-swing (**Fig. 90**),

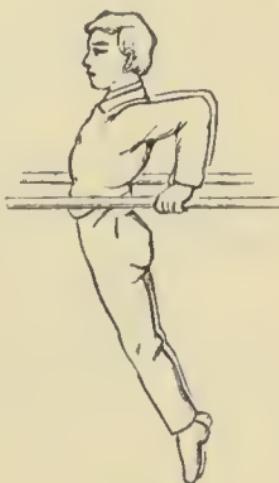


Fig. 88.

- c. with the front-swing (**Fig. 91**),
- d. with the back-swing (**Fig. 92**),

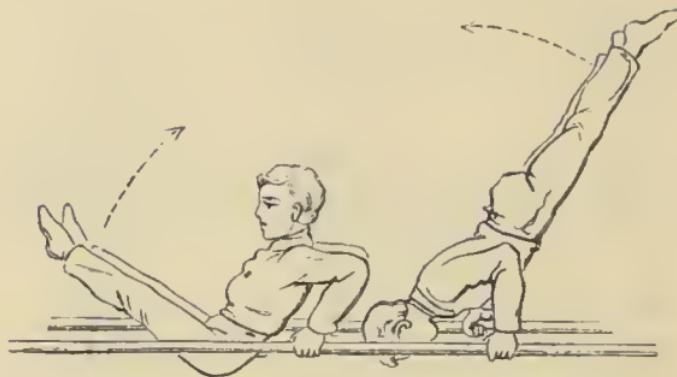


Fig. 90.

Fig. 89.

- e. at end of each back-swing and each front-swing,
- f. with each back-swing and each front-swing.

Travelling forwards and backwards along bars can also be practised with one hand

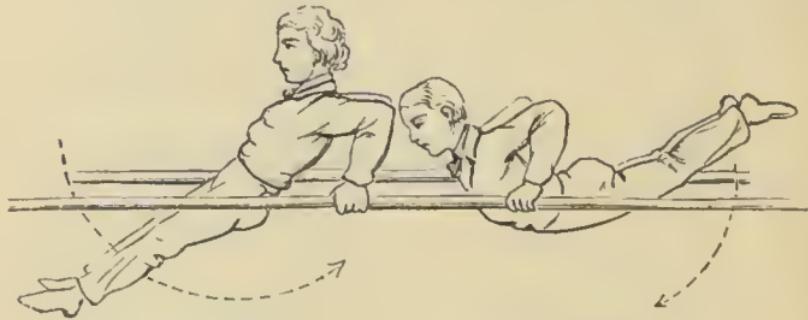


Fig. 92.

Fig. 91.

after the other or both together, either with the swing or contrary to the swing,

- a. when in rest,
 - b. when in bent-arm-rest,
 - c. in both cases;
- 10) Changes of seat with pump-swing;
 - 11) Swing with $\frac{1}{2}$ turn of body at end of front-swing;
 - 12) The same in back-swing;
 - 13) Rest obliquely between bars in bent-arm-rest, lift one hand after the other, bend and straighten arms and also swing in this position;
 - 14) In bent-arm-rest, hands wide apart,
 - a. inside bars (back to bar) with ordinary or reverse grasp of both hands on one bar, jump forwards to bent-arm-rest on opposite bar and so on,
 - b. one hand on each bar, change from one grasp to the other and also from one bar to the other and combination of the same;
 - 15) In ordinary bent-arm-rest drop one arm to hanging position (arm bent), bring other arm to the same bar and make $\frac{1}{2}$ turn, carrying first arm to bent-arm-rest on the other bar.

VIII. Exercises in Elbow-rest.

- 1) Swing in elbow-rest (**Fig. 93**);
- 2) The same to a seat in front or behind hands, with straightening of arms immediately after completing the seat;
- 3) The same to front- and back-leaning-rest, without straightening arms;

- 4) Rise from elbow- to bent-arm-rest and down again,
- with only one arm,
 - with one arm after the other,
 - with both arms together,
 - without shifting hands,
 - with moving one hand forwards,
 - with moving one hand backwards;

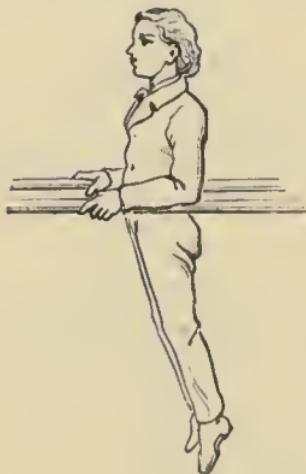


Fig. 93.



Fig. 94.

- The same with a swing, the elbows rising with the travelling motion,
- a. with the front- and back-swing,
- b. contrary to the swing;
- Rise to the rest and make $\frac{1}{2}$ turn to the rest again;
- Elbow-balance (**Fig. 94**);
- Changes of seat whilst in elbow-rest.

IX. Vaults from the Middle of Bars.

The swing off the bars should be made with closed legs, at all events just before alighting and the whole of the body must be perfectly straightened. Swings over the right bar are made with

- 1) Right rear-vault (without a turn) (**Fig. 95**);
- 2) Left flank - vault ($\frac{1}{4}$ right turn) (**Fig. 96**);
- 3) Right rear-vault with $\frac{1}{2}$ right turn;
- 4) Right rear-vault with $\frac{1}{4}$ left turn;

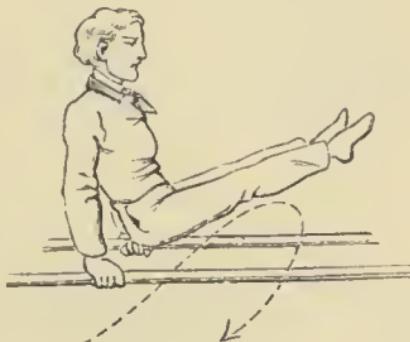


Fig. 95.

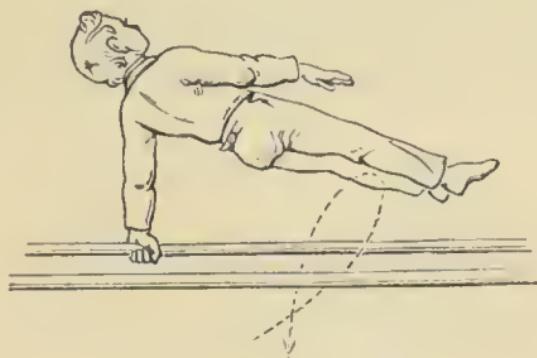


Fig. 96.

- 5) Right rear-vault with $\frac{1}{2}$ left turn.

Swings backwards over the bar are made with

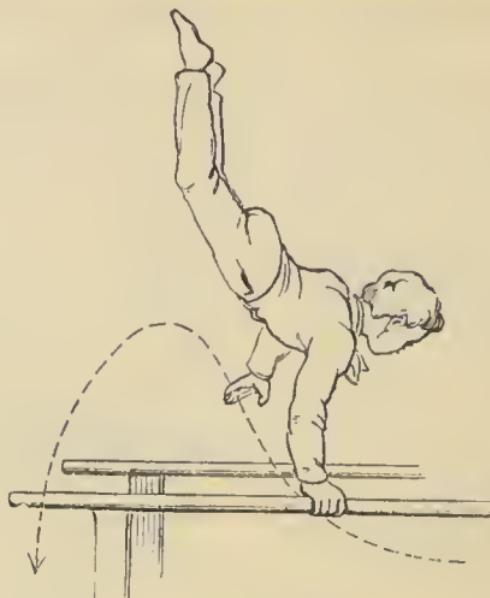


Fig. 97.

- 6) Right front-vault (without turning) (Fig. 97);
- 7) Right flank-vault ($\frac{1}{4}$ left turn) (Fig. 98);
- 8) Right front-vault with $\frac{1}{2}$ left turn;

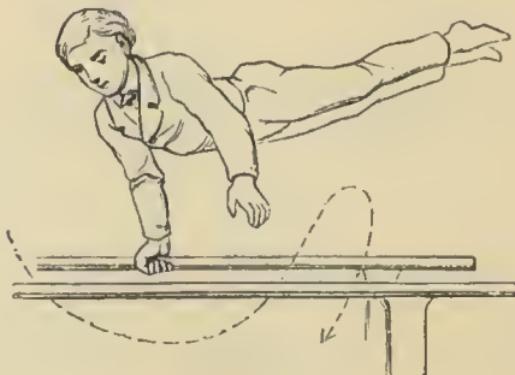


Fig. 98.

- 9) Right front-vault with $\frac{1}{4}$ right turn;
- 10) Right front-vault with $\frac{1}{2}$ right turn.

Each of the previous 10 movements can be practised from

- a. a jump up to rest from standing position,
- b. a swing in rest with or without travelling,
- c. any seat with or without intermediate swing,
- d. the leaning-rest,
- e. the bent-arm-rest,
- f. the elbow-rest.

Each swing-off can be practised from each of these positions, for instance the swing-off backwards can be practised

- a. from a jump up to the rest (without a swing),
- b. from a swing in the rest (moderate or high up to the hand-balance),
- c. from various seats,
- d. from leaning-rest,
- e. from bent-arm-rest,
- f. from elbow-rest.

X. Vaults at End of Bars.

These are practised from the ground, from the rest or also with a run, the ends of bars being grasped.

a.

- 1) Jump up with swing of right leg outside or inside of right bar;

- 2) Jump up to riding-seat on right bar with swing of right leg outside of right bar;
- 3) The same, swinging right leg from between bars;

- 4) The same, swinging right leg outside and over the bar into the rest;
- 5) The same, swinging right leg over both bars;
- 6) Circle of right leg over right bar from the inside to the outside (Fig. 102);
- 7) The same over both bars from outside of left bar;
- 8) Jump up with side-straddling of legs;
- 9) Jump up to straddle-seat (from outside bars);
- 10) The same from between the bars;
- 11) Jump up to straddle-seat across bars, as far forward as possible, also with a previous jump over a buck or a pupil placed at end of bars;
- 12) The same to outside-cross-seat on left thigh on the right bar;
- 13) The same with $\frac{1}{4}$ left turn to inside-cross-seat on the right bar;
- 14) Straddle backwards from between bars (Fig. 104).

b.

- 1) Jump up to straddle-seat with swing of right leg outside right bar and of left leg from between bars;
- 2) Jump up to outside-cross-seat on right bar, swinging legs as before;
- 3) The same as in No. 1 but over bars to standing position at left side of bars;

- 4) The same as No. 2 to standing position at right side of bars;
- 5) Circle of right leg from the outside over right bar and of left leg from between bars over left bar (backwards) back to starting position.

c.

Circle of right leg from between bars on to right bar and of left leg from the outside over left bar on to right bar with $\frac{1}{2}$ right turn.

- 1) To outside-cross-seat on right thigh;
- 2) The same to riding-seat on right bar;
- 3) The same to straddle-seat across bars;
- 4) The same to riding-seat on left bar;
- 5) The same to outside-cross-seat on left bar;
- 6) The same to standing position at left side of bars.

d.

- 1) Circle of left leg from the outside over left bar on to right bar, and of right leg from between bars on to right bar, to outside-cross-seat on right bar;
- 2) to 6) the same to seat as in c.

The above are all in rear-vault position.

e.

- 1) Jump up with swing of both legs to the right side (rear-vault-swing);
- 2) The same to outside cross-seat or to riding-seat on right bar;

- 3) The same over right bar to stand or rest between bars;
- 4) The same over right bar to riding-seat or cross-seat on left bar;
- 5) The same over both bars to standing position at left side of bars (rear-vault over both bars);
- 6) Rear-vault over both bars,
 - a. without turn (Fig. 99),
 - b. with $\frac{1}{4}$ left turn,
 - c. with $\frac{1}{2}$ left turn (Fig. 100).



Fig. 99.

f.

- 1) Jump up with swing of both legs to the right and $\frac{1}{2}$ left turn to the outside-cross-seat on right bar;

- 2) The same with a further $\frac{1}{4}$ left turn to outside-side-seat;
- 3) The same as No. 1 with a further $\frac{1}{2}$ left turn to riding-seat;
- 4) The same as No. 1 with a further $\frac{1}{2}$ left turn to straddle-seat across both bars (screw-vault-mount);

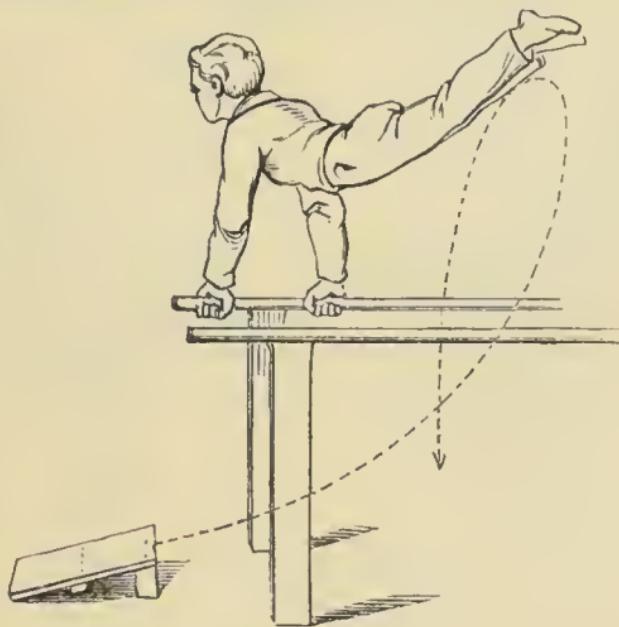


Fig. 100.

- 5) The same as in No. 1 with a further $\frac{3}{4}$ left turn to front-straddle-seat across both bars (Fig. 77) right leg forwards over bars and off.

g.

From between the ends of bars, face outwards and from either the rest, the bent-arm-rest or the elbow-rest, jump off with

- 1) Circle of right leg over right bar;

- 2) Circle of right leg over left bar (in front of left leg);
- 3) The same (behind left leg);
- 4) Straddle forwards (**Fig. 101**).

From the various rests, face inwards, jump off with

- 5) Circle of right leg over right bar from between bars (**Fig. 102**);



Fig. 101.



Fig. 102.

- 6) Circle of right leg over left bar (in front of left) (**Fig. 103**);
- 7) Circle of right leg over left bar (behind left);
- 8) Straddle (**Fig. 104**).

In multiplying this group of exercises refer to note at end of group IX. The alighting in every case takes place

- a. without a turn,
- b. with $\frac{1}{4}$ or $\frac{1}{2}$ turn.

- 9) Straddle off from rest (face outwards) with $\frac{1}{2}$ right turn before legs have straddled over bars (scissors with backward movement off the bars).



Fig. 103.

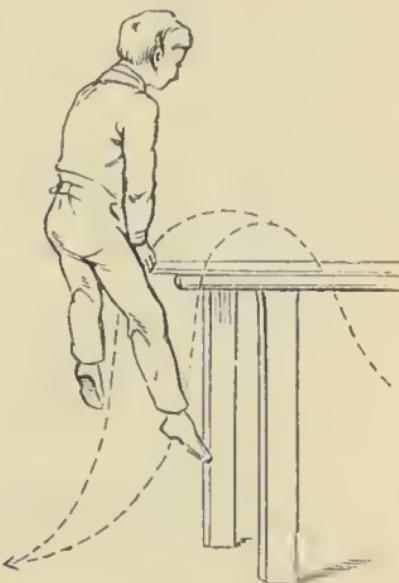


Fig. 104.

XI. Circles from Middle of Bars.

a.

- 1) Circle forwards of right leg (passing under right hand), the left leg either remaining hanging straight down and leaning against left bar or swinging moderately forwards,
 - a. to riding-seat on right bar,
 - b. to inside-cross-seat on right bar,
 - c. with $\frac{1}{4}$ left turn to inside-side-seat on right bar,

- d. to straddle-seat across both bars — also continuously with forward travelling,
- e. to inside-cross-seat on left bar,
- f. to ordinary rest — also continuously,
- g. to riding-seat in front of left hand, swinging left leg over left bar,
- h. with $\frac{1}{4}$ left turn to inside-side-rest on left bar,
- i. with $\frac{1}{4}$ left turn to side-seat on right thigh on left bar,
- k. with $\frac{1}{2}$ left turn to outside-cross-seat on left bar,
- l. with $\frac{1}{2}$ left turn to straddle-seat (scissors),
- m. with $\frac{1}{2}$ right turn to straddle-seat,
- n. with $\frac{3}{4}$ left turn to inside-side-seat on left bar,
- o. to standing position at left side of bars (rear-vault-swing),
- p. the same with $\frac{1}{4}$ left turn,
- q. the same with $\frac{1}{2}$ left turn.

All of these exercises can be practised from

- I. the straddle-seat,
 - II. the ordinary rest,
 - III. the riding-seat behind left hand or with feint movement of left leg over left bar,
 - IV. the outside-cross-seat behind left hand,
 - V. the same as in III but from right bar,
 - VI. the leaning-rest;
- 2) Half circle forwards of left leg (in front of right leg) passing under right hand, right leg to swing moderately forwards between bars,

- from a to m and o, p, q, as in No. 1, also
 r. with $\frac{1}{4}$ right turn to inside-side-rest on
 right bar,
 s. to standing position at right side of bars
 (rear-vault-swing),
 t. with $\frac{1}{4}$ or $\frac{1}{2}$ left turn to standing position
 at right side of bars;
 I, II, III, IV, V, VI, as in No. 1;
- 3) Half circle backwards of right leg, passing
 under right hand, left leg to swing back-
 wards
- a. to ordinary rest — also continuously,
 - b. to riding-seat behind left hand,
 - c. to straddle-seat, across both bars,
 - d. with $\frac{1}{2}$ right turn to straddle-seat,
 - e. the same with $\frac{1}{2}$ left turn,
 - f. to standing position at right side of bars,
 - g. to standing position at left side of bars,
 - I. from ordinary rest,
 - II. from riding-seat in front of left hand,
 - III. from outside-cross-seat in front of
 left hand,
 - IV. from back-leaning-rest.
- 4) Half circle backwards of left leg, passing
 under right hand, the right leg to swing
 backwards,
- a. to the rest — also continuously,
 - b. with $\frac{1}{2}$ right turn to straddle-seat,
 - c. with $\frac{1}{4}$ right turn to outside-side-seat
 on right bar,
 - d. to standing position at right side of bars;
 I, II, III, as in No. 2.

- 5) Half circle as in No. 1, but without moving left leg,
 - I. from riding-seat behind left hand,
 - II. from straddle-seat,
 - III. from outside-cross-seat behind left hand, returning always to the same seat;
- 6) Half circle as in No. 2, without moving right leg. Practise the same exercises as in No. 5;
- 7) Half circle as in No. 3, without moving left leg, from riding-seat behind left hand,
 - a. returning to riding-seat,
 - b. with $\frac{1}{4}$ right turn to outside-cross-seat on left bar,
 - c. with $\frac{1}{2}$ right turn to riding-seat on the same bar;
- 8) Exercises as in No. 1 from the rest to the rest or from the straddle-seat to the straddle-seat, alternately changing sides (alternate half circle);
- 9) Exercises in No. 8 with forward-travel, both hands together, or alternately;
- 10) Exercises as in No. 2 from the rest, alternately changing sides (alternate half circle);
- 11) Exercises as in No. 3 from the rest, alternately changing sides (alternate half circle);
- 12) Exercises as in No. 11 with backward-travel;
- 13) Exercises as in No. 1 alternately with exercises in No. 2 from the rest to the rest,
 - a. with same leg,
 - b. with one leg after the other;

b.

- 14) Half circle of both legs together, passing under right hand. From a to q as in No. 1,
 - I. from straddle-seat behind hands,
 - II. from the rest,
 - III. from riding-seat behind left hand,
 - IV. from outside-cross-seat behind left hand;
- 15) Exercises as in No. 2 from the rest or straddle-seat, alternately right and left (figure eight);
- 16) Half circle forwards of right leg over right bar and then with $\frac{1}{2}$ left turn over left bar, right hand grasping left bar and left hand grasping right bar, left leg remaining between bars during the whole exercise.

c.

- 17) Half circle backwards of left leg under left hand with $\frac{1}{2}$ right turn to outside-cross-seat on left thigh;
- 18) Half circle backwards of right leg under right hand with $\frac{1}{2}$ right turn to the rest, left leg remaining between bars;
- 19) Half circle of both legs held extended in front-lever and to right or left with right or left turn respectively;
- 20) Half circle backwards of both legs to right or left from the rest at end of bars, back to rest again (face inwards).

d.

- 21) Various half circles from various seats with both hands in front on one bar only, back to seat or standing position.

e.

- 22) Various circles with mounts to various seats or with alighting after an intermediate swing, for instance, half circle of one or both legs forwards and back-swing to straddle-seat, or back-swing and out with front-vault-swing &c., further half circles with one (exercise 3) or both legs (exercise 19) and out with rear-vault-swing.

f.

- 23) Straddle forwards to
- upper-arm-hang,
 - bent-arm-rest, also with backward- or forward-travel,
 - ordinary rest from
 - rest at ends or in the middle of bars,
 - bent-arm-rest,
 - elbow-rest,
 - upper-arm-hang;
- 24) Straddle forwards and off with front-vault-swing, with arm- or hand-balance, or somersault;
- 25) Straddle backwards from the rest to bent-arm-rest at end of bars, facing inwards.

g.

- 26) Half circle of one leg (with or without swing) from inside-side-rest on one bar

over behind bar. The right leg to the right and the left leg to the left;

- 27) The same with circles reversed;
- 28) The same with both legs together;
- 29) Half circles as in Nos. 26 and 27 from the side-leaning-rest across both bars, both hands on one bar,
 - a. over the nearer bar,
 - b. over both bars.

XII. Exercises from Side-stand between Bars.

Hands grasp the front-bar (**Fig. 105**) and the jump takes place with both feet together.

- 1) Jump to inside-side-rest on front-bar (**Fig. 106**);

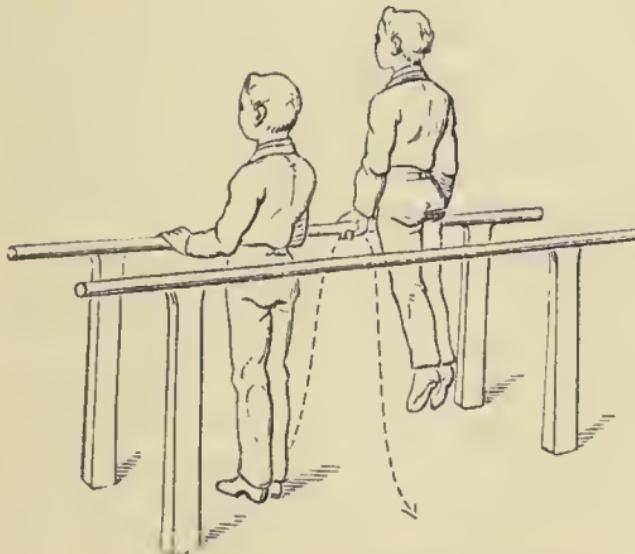


Fig. 105.

Fig. 106.

- 2) The same with $\frac{1}{4}$ or $\frac{1}{2}$ turn to seat on front-bar;
- 3) The same with circle of one leg to inside-side-seat on one thigh;
- 4) Jump over the front-bar with flank-squatting- or straddle-vault;
- 5) Jump up and push back to inside-side-seat on the back-bar;
- 6) Jump up with circle of one leg outwards over back-bar to side-seat on one thigh;
- 7) The same with circle in the opposite direction;
- 8) Jump up with circle of both legs over back-bar and $\frac{1}{4}$ turn to outside-cross-seat;
- 9) Flank- or rear-vault over back-bar;
- 10) Squat with one or both legs on back-bar;
- 11) The same resting on one or both insteps;
- 12) Squat or straddle-vault over back-bar;
- 13) Swing both legs sideways to the right and with $\frac{1}{4}$ right or left turn, mount to straddle-seat across bars.

Exercises Nos. 5 to 12 are less difficult when the back-bar is lower than the front-bar, and more difficult in the reverse case.

Most of the exercises in this group can be started not only from the inside-side-rest, but also from the inside-side-seat on one thigh (No. 5). When these exercises are executed over both bars without touching the back-bar, they are more difficult.

XIII. Exercises from Side-stand outside Bars.

These exercises are similar to the vaults over the horse and are started with a straight or oblique run, from standing position, from rest &c. For instance front-vault-swing right to

- 1) Riding-seat on near-bar;
- 2) Front-leaning-rest on near-bar or both bars or on off-bar only;
- 3) Rest between bars;
- 4) Riding-seat or outside-cross-seat on off-bar;
- 5) Front-vault over both bars;
- 6) Screw-vault over both bars.

Preparatory exercises for the flank- and rear-vault are easily based upon the above examples. Pleasing exercises can be shown by combining front-vault-swings into the bars with rear-vault-swings out. The reverse combinations are more difficult.

Amongst the more difficult exercises may also be included the combination of swings into the bars with swings on to the bars, such as right front-vault with

- 1) Half circle forwards of right leg on to near-bar;
- 2) The same on to off-bar;
- 3) The same with both legs on to off-bar;
- 4) Straddle forwards;
- 5) Upper-arm-hang and roll backwards &c.

In many of these exercises, when the bars are not too high, the hands can grasp both bars from the beginning (Fig. 107).



Fig. 107.

It is however more easy to grasp only the near-bar, changing the hand or hands in the course of the exercise. The most difficult method is to start with grasp of the further bar. Some of the exercises can be rendered more easy of execution, when learning them, by using bars of different heights and starting the exercises from the higher bar.

XIV. Exercises from Side-stand at End of Bars.

These exercises are started from the outside-side-stand near the ends of the bars, so that

the ends are in a line with the left side of the pupil.

A. Grasp bar or bars with reversed grasp of right hand and ordinary grasp of left hand and with $\frac{1}{4}$ right turn, swing round in front-vault-swing to the rest at end of bars, face inwards and without stoppage, complete the exercise with the following movements:

- 1) Swing off backwards with left leg over left bar;
- 2) Swing off backwards with right leg over right bar;
- 3) Swing off backwards with left leg over right bar;
- 4) Swing off backwards with right leg over left bar;
- 5) Swing off backwards with both legs over left bar;
- 6) Swing off backwards with both legs over right bar;
- 7) Straddle off backwards.

All of these finish in the cross-stand at end of bars.

B. Grasp bar or bars with reverse grasp of left hand and ordinary grasp of right hand and with $\frac{1}{4}$ left turn, swing with front-vault over the bar to the rest between the bars, face outwards and without stoppage, complete the exercises with the following movements:

- 1) Swing off forwards with right leg over right bar;

- a. without turn,
 - b. with $\frac{1}{4}$ left turn,
 - c. with $\frac{1}{2}$ left turn;
- 2) Swing off forwards with left leg over left bar,
 - a., b. and c. as in No. 1;
 - 3) Swing off forwards with right leg over left bar (behind the left),
 - a. without a turn,
 - b. with $\frac{1}{4}$ turn;
 - 4) Swing off forwards with left leg over right bar (behind the right),
 - a. and b. as in No. 3;
 - 5) Swing off forwards over left bar with right leg in front of the left leg (without turn);
 - 6) Swing off forwards over right bar with left leg in front of the right leg (without turn);
 - 7) Swing both legs forwards between bars;
 - 8) Straddle forwards over both bars;
 - 9) Swing both legs over right bar,
 - a. without turn,
 - b. with $\frac{1}{4}$ left turn;
 - 10) Swing legs high up to somersault at end of bars,
 - a. with rest obliquely on left elbow,
 - b. with bent arms,
 - c. with straight arms,
 - d. with rest on right elbow and then push slowly up to straight arms,
 - e. with free lever and straightening of arms.
 - 11) Swing with closed legs to the hand-balance and off with

- a. right front-vault,
- b. right screw-vault,
- c. straddle.

C. With both hands in ordinary grasp, swing in left rear-vault ($\frac{1}{4}$ right turn) over bar to the rest, face inwards, and swing off from bars as in exercises 1 to 7 in class A.

XV. Exercises in the Upper-arm-hang between bars.

The bars are placed a little above shoulder-height.

- 1) With arms extended sideways across bars, sink and rise in the shoulders;
- 2) Swing in upper-arm-hang, arms extended forwards (Fig. 108), hands grasping bar;

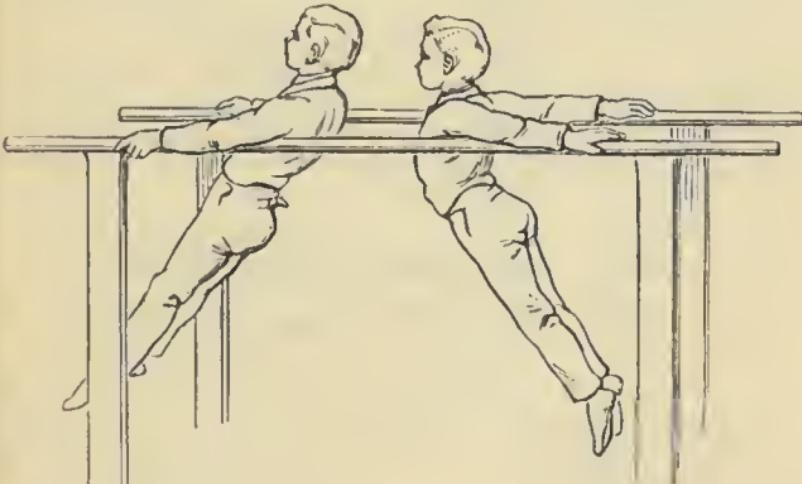


Fig. 108.

Fig. 109.

- 3) The same with arms extended backwards (Fig. 109);

- 4) From exercise in No. 2 mount to
 - a. straddle-seat,
 - b. riding-seat on one bar,
 - c. outside-cross-seat on one bar;

- 5) From No. 2 swing up to bent-arm-rest or to rest,
 - a. in the front-swing (up-start),
 - b. in the back-swing (up-rise);
- 6) From the rest fall back to the upper-arm-hang in the back-swing and swing up again to the rest,
 - a. in the front-swing,
 - b. in the back-swing (once or repeatedly);
- 7) From the rest fall back to the upper-arm-hang in the front-swing and then swing up again;
- 8) The same with various mounts;
- 9) Exercise No. 6 with hopping;
- 10) Jerk up from No. 3 position;
- 11) The same, but one arm extended forwards, the other backwards.

XVI. Somersault Exercises.

- a. Rolls from the Hang on hands.

1. Backwards.

Stand between middle of bars and grasp bars from outside.

- 1) Hammock-hang, one leg on each bar or both on one bar (Fig. 110);
- 2) Turn-over backwards to hanging position, head downwards (Fig. 111);

- 3) In hanging head downwards, bend and straighten arms, body or legs, also with various leg movements &c.;

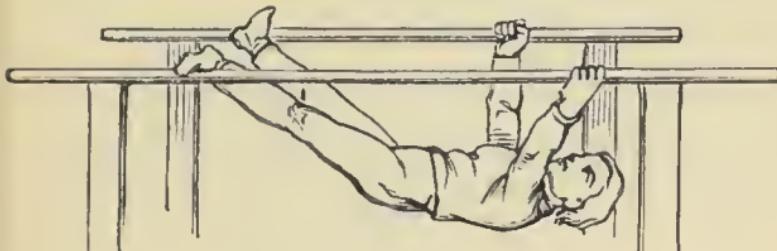


Fig. 110.

- 4) Turn-over backwards ($\frac{3}{4}$ turn) to back-hammock on one or both feet;
 5) Turn-over backwards to standing position or to back-hang;
 6) From the hammock (No. 1) turn-over backwards to the back-hammock (nest) or to the standing position or to back-hang;

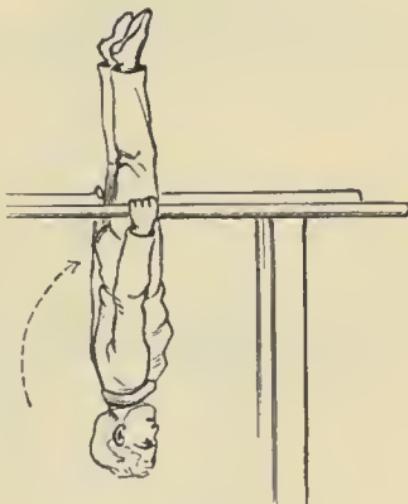


Fig. 111.

- 7) Turn-over backwards, straddle legs and hang on bars from thighs:
 a. legs at right angles to body (Fig. 112),
 b. legs and body in a straight line;

- 8) Turn-over backwards up to straddle-seat;

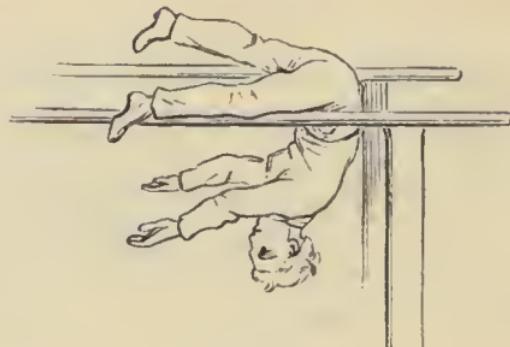


Fig. 112.

- 9) From the straddle-seat drop backwards and hang on thighs;
 10) Complete turn-over backwards from straddle-seat to straddle-seat (the back-dive).

2. Forwards.

Stand between bars, bend body forward and grasp bars backwards from the outside (Fig. 113).

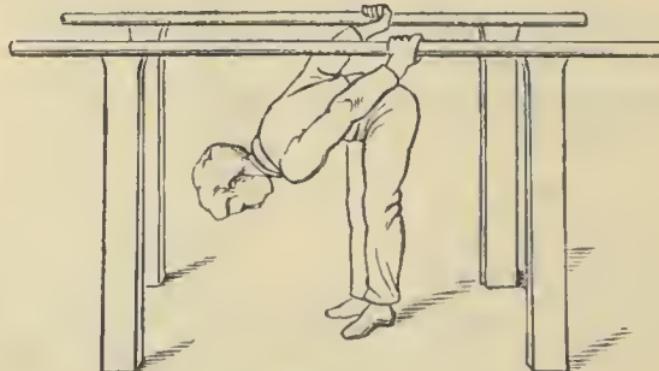


Fig. 113.

Turn-over forwards,

- 1) To the standing position;
- 2) To hammock-hang on one or both legs;
- 3) From hammock-hang rise to straddle-seat;
- 4) From straddle-seat turn over forwards to straddle-seat (the front-dive). It will help in this latter exercise if the hands, the fore- or the upper-arms be pressed against the inside of the bars;
- 5) Turn-over forwards from the straddle-seat, grasping supports of bars.

b. Rolls with arms extended on bars.

(Fore-arm and upper-arm-balances.)

- 1) Roll forwards from the standing position, the seat, kneeling position, leaning-rest &c. (with rest on the fore-arm or the upper-arm),
 - a. to straddle-seat,
 - b. to outside-cross-seat,
 - c. to standing position;
- 2) Roll forwards from the rest, bent-arm-rest (**Fig. 114**) or elbow-rest into upper-arm-balance (**Fig. 115**) or into fore-arm-balance (**Fig. 94**) and thence
 - a. to straddle-seat,
 - b. to hanging on arms,
 - c. to standing position,
 - d. to outside-cross-seat,
 - e. to the rest.

The preliminary exercises for the above is a rise from upper-arm-balance backwards

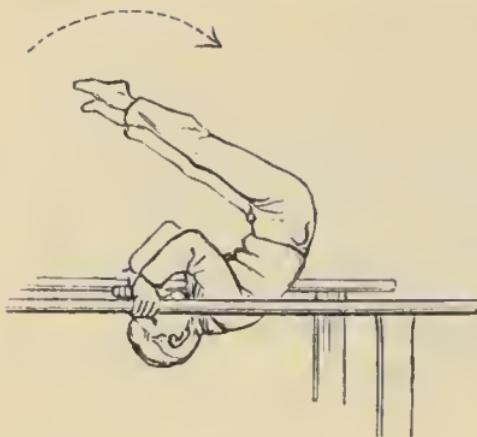


Fig. 114.

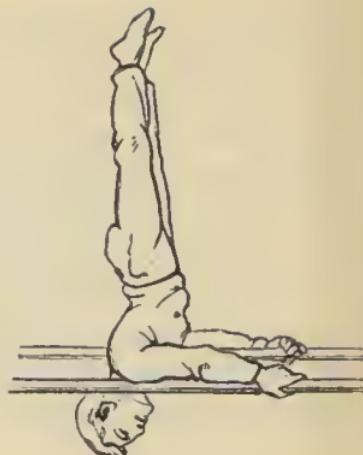


Fig. 115.

(**Fig. 116**) to the rest whilst legs are dropping.

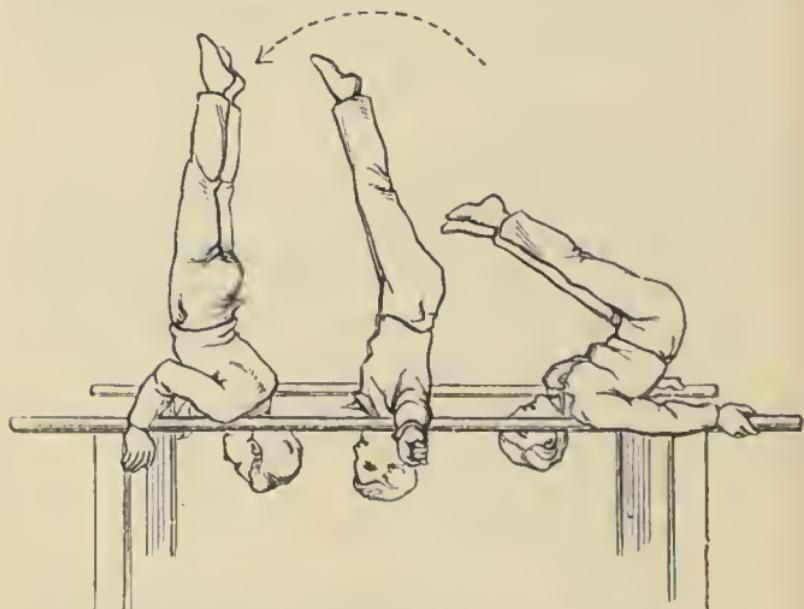


Fig. 118.

Fig. 117.

Fig. 116.

- 3) Roll backwards from standing position, seat, kneeling or leaning position &c. with arms extended along bars:
 - a. to straddle-seat,
 - b. to hanging on arms,
 - c. to standing position,
 - d. to outside-cross-seat;
- 4) The same from the upper-arm-hang with a swing and
 - a. with grasp of hands just at time of legs dropping and coming into the rest,
 - b. with arms extended sideways and without grasp of bars (Fig. 116);
- 5) Roll backwards to balance on upper-arm, then to the rest, the leaning-rest, or the straddle-seat with crossing of legs and half turn (roll with scissors) to the lever backwards and off with the front-vault-swing (lever may be omitted);
- 6) Roll backwards to hand-balance;
- 7) Swing in the rest, drop forwards to upper-arm-balance in the back-swing and up again in the return-swing, then fall backwards to upper-arm-balance in the front-swing. Rise again to the rest (alternate forward- and backward-roll, which can also be practised without grasping bars).
 - c. Somersaults from rest at end of bars.
- 1) From kneeling or squatting of left or right or both legs on bars;
- 2) From the standing position on ground or on bars with raising of back (legs straight);

- 3) From the straddle-seat;
- 4) From the riding-seat;
- 5) From the outside-cross-seat;
- 6) From the swing with straight arms, bending arms during the somersault (**Fig. 119**);

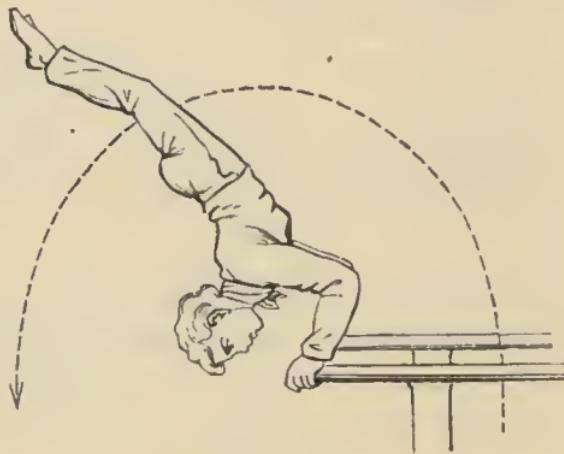


Fig. 119.

- 7) The same without bending arms (**Fig. 120**);
- 8) From the swing in bent-arm-rest;
- 9) The same, finishing with straight arms;
- 10) From the elbow-rest;
- 11) Somersault, slowly rising from the back-lever to hand balance;
- 12) Up-start with somersault;
- 13) Somersault with $\frac{1}{4}$ turn;
- 14) Somersault from the hand-balance and with $\frac{1}{4}$ turn to hand-balance on one bar;
- 15) Somersault over both bars from outside-side-stand, grasping near-bar with ordinary grasp and off-bar with reverse grasp;

- 16) Clear-somersault backwards from the rest to upper-arm-hang in the middle of the bars;
- 17) The same at end of bars to the standing position (assistance is required).

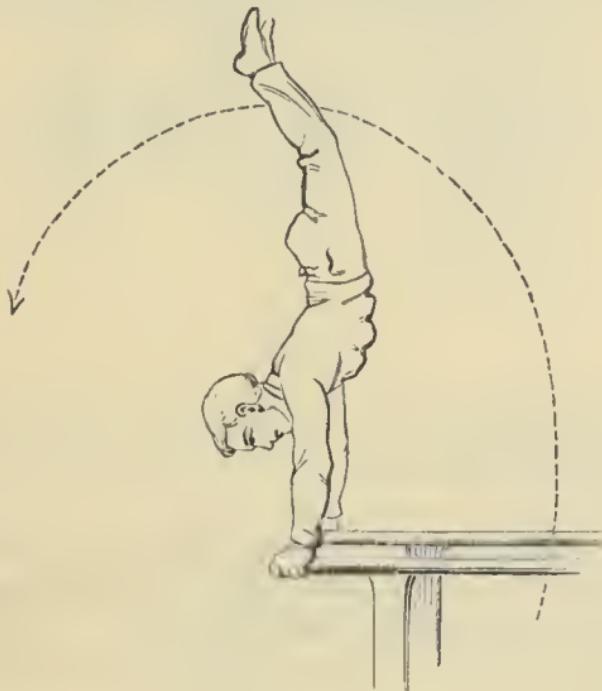


Fig. 120.

XVII. Various Exercises.

a.

- 1) Side-hammock, hands on one bar, one or both knees or insteps on the other bar;
- 2) Cross-hammock with one or both feet on inside of bars (Fig. 110);

- 3) Side-hang on one bar, face inwards or outwards and one or both feet pressing against the other bar (**Fig. 121**);

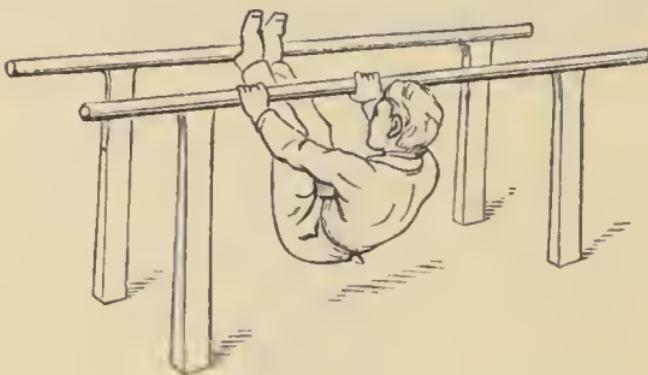


Fig. 121.

-
- 4) Cross-hang, one or both feet pressed against the supports;
- 5) Change in the various hammock positions, one hand after the other or both together, with or without travelling;
- 6) Circle up from the hammock to the seat, the rest or leaning-rest &c.;
- 7) Push up and jerk up from position as in No. 4 forwards and backwards to rest, bent-arm-rest &c.;
- 8) Push up and jerk up from position as in Fig. 121 to the rest and with $\frac{1}{4}$ or $\frac{1}{2}$ turn to seat on the near-bar &c.;
- 9) From the stand between bars jump up with $\frac{1}{2}$ turn and scissors to front-leaning-rest, or straddle-seat across bars.

b.

- 1) From the front- and back-leaning-rest drop slowly to the hammock, face downwards (Fig. 122) and rise slowly into rest again;

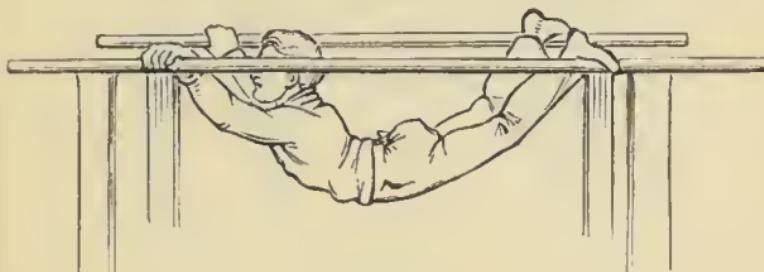


Fig. 122.

- 2) Drop slowly from rest to bent-arm-rest on one or both arms until the face touches either bar, then further to hanging position, back again to bent-arm-rest or rest, either by pulling up slowly or quickly (jerking) or with up-start or up-rise movements. — This exercise is easiest of execution at end of bars, face inwards;
- 3) Drop down from kneeling position on bars to hanging on knees, with or without help of hands and arms, then rise again to kneeling position.

c.

- 1) From outside-side-seat, bend body backwards without assistance of hands to lying position across bars;

- 2) Inside-side-seat and bend body backwards until level with bars (Fig. 123), also from

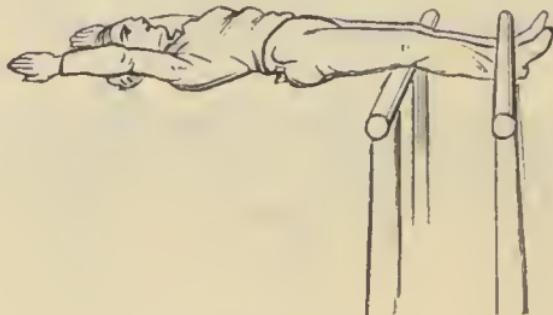


Fig. 123.

riding-seat by bending sideways, also forwards from inside-side-rest by bending forward;

- 3) From the first position in No. 2 bend body backwards until hanging on bars from the knees, swing up again to side-seat, the feet being kept under further bar during the whole exercise.

d.

- 1) Circle up over one bar from inside-side-stand to leaning-rest across bars or to straddle-seat;
- 2) Circle up from the back-bent-arm-rest between bars to side-seat on the bars;
- 3) Muscle-grind on one bar, from between bars (Fig. 124) to side-seat on bars;
- 4) From outside-side-stand swing up legs between the bars and over the further bar

to standing position. Also obliquely from outside-cross-stand.

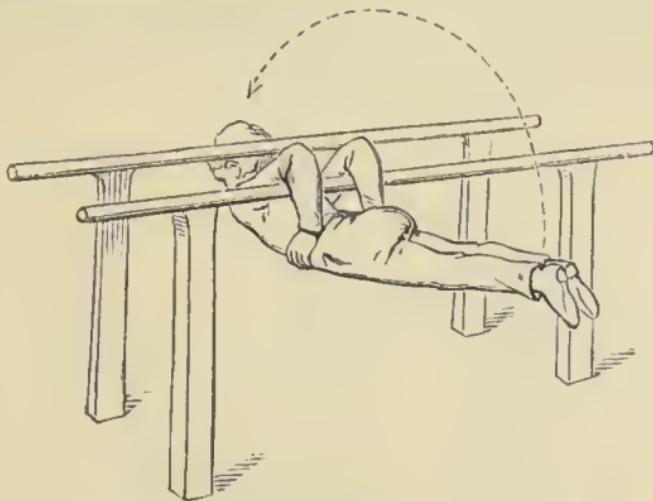


Fig. 124.

e.

- 1) From stand at end of bars, face outwards, clear-circle up to rest;
- 2) The same following with swings-off or straddle-off.

f.

- 1) Jump up to rest on bars without help of hands;
- 2) The same with travelling or hopping in seat on bars, especially in straddle-seat and hopping off at end of bars without use of hands;
- 3) The same with change of seat, also from one bar to the other;
- 4) Stand on bars and drop to seat without help of arms.

g.

- 1) Lever on one elbow, from kneeling, from riding-seat, from leaning-rest, with swing from the rest or bent-arm-rest. The free arm is in rest or in elbow-rest or perfectly free;

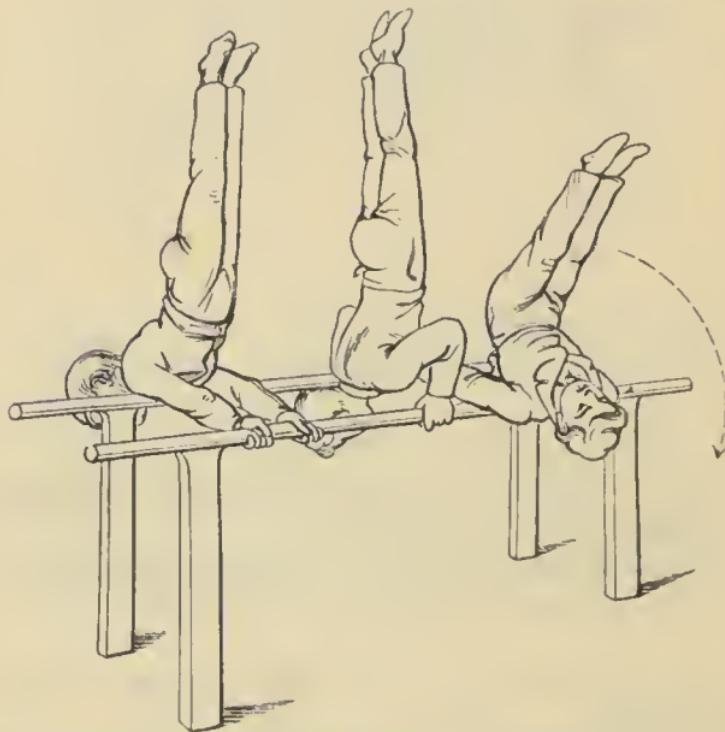


Fig. 125.

Fig. 126.

Fig. 127.

- 2) Pivot-lever, that is, turning to seat or over bars when in lever on one elbow. Amongst others, practise the swing from the rest to lever on right arm, $\frac{1}{2}$ left turn in pivot-lever to the rest between bars, also with front-vault over bars;

- 3) Lever on both elbows;
- 4) Change of lever, also with travelling;
- 5) Changes of seat with scissors, vaults, circles and somersaults with levers.

h.

The head is either between the bars or outside.

- 1) Balance on chest from outside-side-rest with roll over forwards (**Fig. 125**);
- 2) Shoulder-balance (**Fig. 126**) from squatting position behind one or both hands, from kneeling position, from straddle-seat, riding-seat and cross-seat, from swinging &c.;
- 3) Balance on neck, from outside-side-seat with roll over backwards (**Fig. 127**);
- 4) From outside-side-rest kneel on near-bar, place neck against off-bar, raise body and legs to the neck-balance and further drop down to lever, the head being kept between the bars throughout.

With bars that admit of being raised to different heights many exercises can be varied and made easier or more difficult by the raising of one or both bars obliquely and practising the exercises up or down the inclination.

Also combinations can be made of

- a. bars with bars,
 - b. bars with buck,
 - c. bars with horse,
 - d. bars with horizontal bar,
- either placed at equal or different heights.

THE HORIZONTAL BAR.

Apparatus. The horizontal bar should be an adjustable one, made of wood or iron and should be at least 6 feet long and have a diameter of about two inches.

The following distinctions in horizontal bar exercises must be noted.

- A. Exercises from the hanging position on hands,
- B. Up-rises and resting positions on the bar.
- C. Swings at, up, and round the bar (circles),
- D. Jumps at, on, or over the bar.

A. HANGING EXERCISES ON HANDS.

I. Side-hang and Cross-hang.

The bar should be placed high enough to admit of being easily reached with a moderate jump. In the side-hang the grasp is either ordinary, reverse, or combined. In the cross-hang, it is either with thumbs towards the face (ordinary grasp) or with thumbs away from face (twisted grasp).

The following exercises can be practised on one bar by two or three at a time and by changing and combining the grasp many pleasing exercises can be made.

a.

- 1) Four to six repeated jumps to side-hang on bar with straight arms (**Fig. 128**);
- 2) The same to cross-hang (**Fig. 129**);
- 3) The same to side-hang with bent arms (**Fig. 130**);

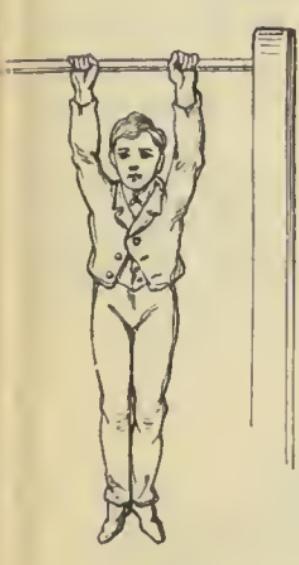


Fig. 128.



Fig. 129.

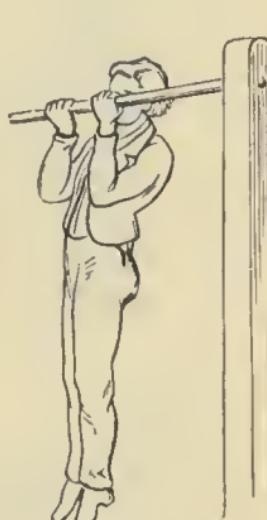


Fig. 130.

- 4) The same to cross-hang with bent arms;
- 5) Exercises Nos. 1 to 4 with simultaneous leg movements viz:
 - a. bend and straighten one or both feet,
 - b. raise and sink one or both heels,
 - c. raise and sink one or both knees,
 - d. extend one leg,
 - e. side- or cross-straddle legs,
 - f. cross legs;

- 6) Exercises Nos. 1 to 4 with turn of body in jumping on, or in alighting, also in both;
- 7) Jump up to hanging position and
- raise one or both knees,
 - raise knee or knees and then extend leg or legs forwards,
 - raise one or both legs forwards,
 - straddle and close legs when extended forwards,
 - raise knees, bringing heels to thighs and extend legs forwards,
 - raise legs forwards or obliquely up until the insteps touch the bar. The legs are either a little bent (**Fig. 131**) or quite straight (**Fig. 132**).



Fig. 131.



Fig. 132.

b.

- 1) Jump up to bent-arm-hang on bar and sink slowly to straight-arm-hang;

- 2) Rise slowly or quickly from straight arm-to bent-arm-hang;
- 3) Successive rise and fall either slowly or quickly from straight arm-to bent-arm-hang;
- 4) Hang with one bent arm, first with grasp of free hand on the wrist (**Fig. 133**) or on fore-arm, elbow, upper-arm or shoulder and finally without help of free arm;
- 5) Drop and rise slowly from position in No. 4;
- 6) Exercises Nos. 3 to 5 with simultaneous leg movements.



Fig. 133.

c.

- 1) Jump to side-hang, momentary release of grasp of one hand, with dropping, extending, circling or thrusting upwards of the same, grasp bar again and off;
- 2) Release grasp of right and left hand alternately;
- 3) Release grasp of both hands together with clapping of same, also with change of grasp, for instance from ordinary to reverse or vice versa, or change in combined grasp;
- 4) Travel along bar in side-hang with ordinary, reverse, or combined grasp, one hand

- after the other, either in the ordinary way or one crossing the other;
- 5) The same, both hands together (hopping) (**Fig. 134**);



Fig. 134.

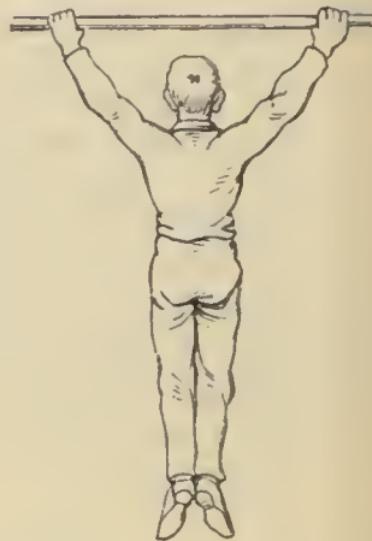


Fig. 135.

- 6) The same as in Nos. 4 and 5 with bent arms;
- 7) Travel from ordinary grasp to wide grasp, either with movement of one hand only or alternately;
- 8) The same both hands together (**Fig. 135**).
In the following exercises the leader should apply all the various grasps both in straight-arm- and in bent-arm-hang.

- 9) Travel and hop sideways with
a. one or both knees raised,
b. one or both heels raised,
c. one or both legs extended forwards,
d. straddle of legs;
- 10) Travel and hop with straddle of legs, or
raising of heels or knees at each step.
-

d.

- 1) Swing forwards and backwards in side-hang;
- 2) Swing and release one or both hands momentarily at end of each back-swing;
- 3) Swing and travel sideways with right and left hand alternately;
- 4) The same, each hand grasping several times at each back-swing;
- 5) Hop sideways with ordinary grasp in each back-swing, with reverse grasp in each front-swing, or combined grasp in each front- and back-swing;
- 6) Swing with side-straddling and closing of legs in the front-swing, in the back-swing or in both, also with travelling;
- 7) The same, keeping legs in side-straddle;
- 8) The same, extending one leg forwards in the front-swing;
- 9) The same, extending one leg backwards in the back-swing;
- 10) The same, keeping legs in cross-straddle, also with change of right and left leg forwards in the front- or back-swing;

- 11) The same, raising knees at end of front-swing;
- 12) The same, raising heels at end of back-swing;
- 13) The same, raising knees at end of front-swing and heels at end of back-swing.

c.

- 1) Travel forwards and backwards in cross-hang, one hand after the other or past each other (**Fig. 136**);
- 2) The same both hands together (hopping);
- 3) Nos. 1 and 2 in bent-arm-hang;
- 4) No. 1 with extention of legs or raising of knees or heels;
- 5) Hop forwards or backwards, holding legs in either side- or cross-straddle position;
- 6) Hop either on or from spot, hanging on one bent or straight arm;
- 7) Swing forwards and backwards in cross-hang;
- 8) Swing sideways in cross-hang.



Fig. 136.

II. Turns whilst hanging on Hands.

- 1) Twist body, maintaining firm grasp of hands;

- 2) With $\frac{1}{4}$ left turn change from side-hang to cross-hang;
- 3) Make $\frac{1}{2}$ left turn round either right or left hand, which maintains its grasp (Fig. 137);



Fig. 137.

- 4) Continue exercise in No. 3, travelling along the bar;
- 5) Swing and at end of front-swing, make $\frac{1}{2}$ left turn, the left hand retaining grasp and the right hand taking ordinary grasp at other side of bar;
- 6) The same, both hands releasing grasp and taking ordinary grasp at other side of bar;
- 7) Half turn at end of back-swing in combined grasp.

III. Under-swings

from bar chest high or higher.

- 1) Jump to side-hang on bar from gradually increasing distance and alight underneath the bar;
- 2) The same from standing position under the bar and swing off forwards (under-swing);
- 3) The same with a turn;
- 4) The same from the swing in side-hang,
 - a. swing off forwards } also with a turn;
 - b. swing off backwards }
- 5) Under-swings over a rope placed parallel with the bar (**Fig. 138**) as high and as far as possible;

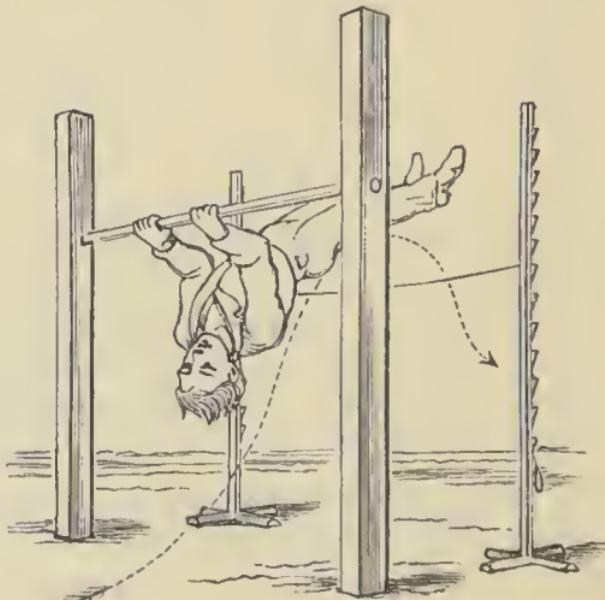


Fig. 138.

- 6) The same over a rope swung in skipping rope fashion;
- 7) The same over a rope, placed at right angles to the bar;
- 8) The same from the rest and different kinds of seat on the bar.

IV. Turns-over between Arms under Bar, bar at height of head.

a. Without a Swing.

Side-hang with ordinary, reverse, or combined grasp, pass legs slowly between arms under bar and down, making a complete turn-over backwards of body and back again to starting position.

- 1) From standing position on ground to the same (**Fig. 139**);



Fig. 139.

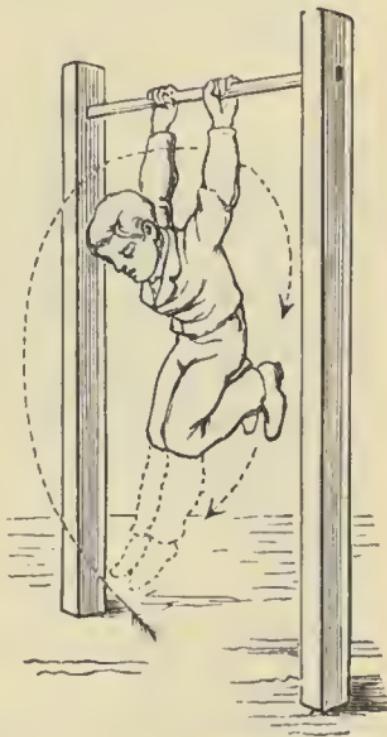


Fig. 140.

- 2) From the stand, or the hang to the hang;
- 3) To the side-hock-hang (on both knees);
- 4) To the hang, head downwards (Fig. 158);
- 5) To the back-hang:
 - a. with bent knees (**Fig. 140**),
 - b. with straight legs;
- 6) With grasp of one hand on bar and the other on support of bar;

- 7) Turn-over to the back-hang, release one hand when a complete turn follows of itself to side-hang;
- 8) From the stand with back to bar, or from the back-hang turn-over forwards and then circle up to bar.

b. With a Swing.

- 1) From the stand to the stand;
- 2) To the back-hang and swing in the same;
- 3) To the hock-hang and swing up on bar either forwards or backwards;
- 4) To the hang, head downwards and circle on to bar (back to bar);
- 5) To the stand with $\frac{1}{2}$ turn before alighting;
- 6) To the stand with shoot-off as far as possible.

c. Double Turn-over.

- 1) With reverse grasp of widely extended hands;
- 2) With twisted grasp of widely extended hands.

V. Levers in the Hang on Hands.

- 1) Drop slowly with straight body from the hang, head downwards (Fig. 158) to the back-lever;
- 2) Raise the body and legs from the back-hang to the back-lever;
- 3) Sink slowly down from the back-rest to the back-lever (Fig. 141);

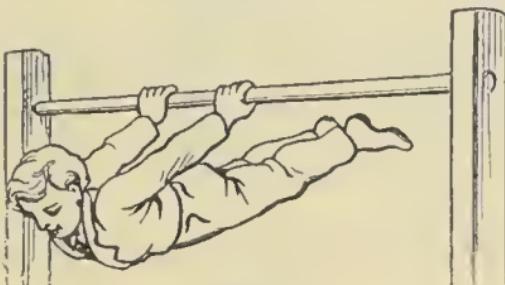


Fig. 141.

- 4) Back-lever with leg movements, such as straddling or raising of one or both heels or knees;
- 5) Front-lever (Fig. 142) by dropping legs slowly from the hang, head downwards;
- 6) The same from the ordinary hang by raising body and legs (Fig. 142);
- 7) The same from the rest, dropping either forwards or backwards;
- 8) Rise from the ordinary hang through the front-lever to the hang, head downwards;

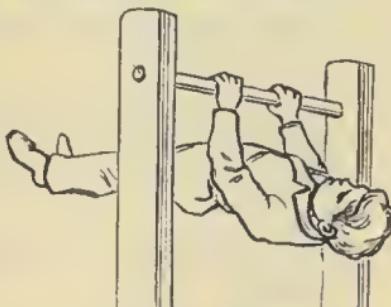


Fig. 142.

- 9) Rise from the back-hang through the back-lever to the hang, head downwards, bar behind;
- 10) Change from front-lever to back-lever by passing legs between arms.

The levers in Nos. 1, 2, 5, 6, 7, 8 and 9 are easier, when one leg is bent.

- 11) Back-lever in cross-hang;
- 12) Front-lever in cross-hang;
- 13) Quarter turn of body whilst in back-lever;
- 14) Quarter turn of body whilst in front-lever;
- 15) Change in Nos. 13 and 14 to right and left;
- 16) Exercise as in No. 13, but on one arm only.

VI. Exercises in Elbow- and Upper-arm-hang.

- 1) Hang from one or both elbows;
- 2) Change from one elbow to the other;
- 3) Hang from one upper-arm and change over to the other;
- 4) Exercises Nos. 1 to 3 with a swing.

In the above four exercises the hand of the free arm may or may not grasp the bar.

-
- 5) Hop or travel sideways with both or alternate arms, whilst in front-elbow-hang;
 - 6) Elbow- and upper-arm-hang with back to bar;
 - 7) Hop, swing or travel, whilst in back-elbow-hang;
 - 8) Upper-arm-hang, facing bar
 - a. with extended arms (**Fig. 143**),
 - b. with both hands grasping bar (**Fig. 144**);



Fig. 143.

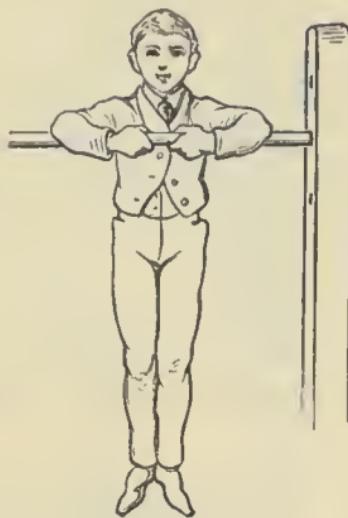


Fig. 144.

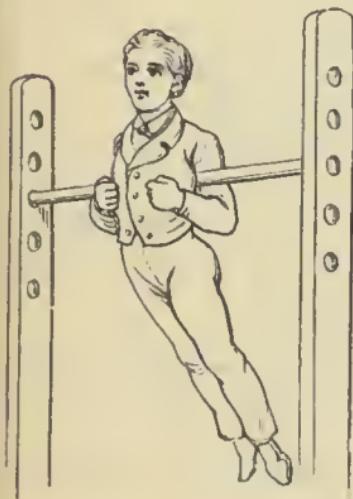


Fig. 145.



Fig. 146.

- 9) Back-upper-arm-hang (**Fig. 145**), also with arms extended sideways along bar;
- 10) Upper-arm-hang on one arm (**Fig. 146**);
- 11) Back-elbow-hang, or back-upper-arm-hang and grasp heels;
- 12) Change from back-upper-arm-hang to front-upper-arm-hang with half turn of body:
 - a. without a swing,
 - b. with a swing;
- 13) Back-lever, hanging on wrists.

B. UP-RISES AND EXERCISES IN THE REST.

VII. Up-riises, Rest and Seat exercises.

a.

- 1) Pull up slowly to bar and sink again, bar in front;
- 2) Pull up slowly to elbow-hang on one or both arms;
- 3) Rise and drop quickly in front-elbow-hang;
- 4) Jerk up from ordinary hang to upper-arm-hang on one or both arms;
- 5) Slow up-rise to bent-arm-rest on one arm, the other arm being all the time in upper-arm-hang;
- 6) Slow up-rise to bent-arm-rest on one (**Fig. 147**) or both arms;
- 7) From No. 6, up-rise to straight arms;

- 8) Up-rise in cross-hang to bent-arm-rest on one arm, sink to ordinary hang and up-rise in same way upon other side of bar on other arm (change of bent-arm-rest);
- 9) Up-rise from front-elbow-hang to elbow-rest on bar;
- 10) The same with a jerk;
- 11) Up-rise from ordinary hang to rest (**Fig. 148**);
- 12) The same with a jerk;
- 13) Hop on spot, whilst in back-elbow-hang;
- 14) Up-rise from back-elbow-hang to bent-arm-rest on one or both arms;



Fig. 147.

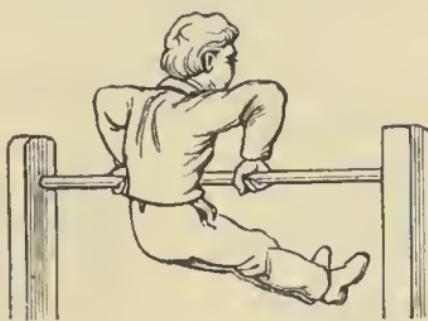


Fig. 148.

- 15) With bar behind, up-rise from cross-hang
 - a. to bent-arm-rest on one or both arms,
 - b. to bent-arm-rest, changing from one side of bar to the other (**Fig. 149**),
 - c. with a turn to the ordinary rest.

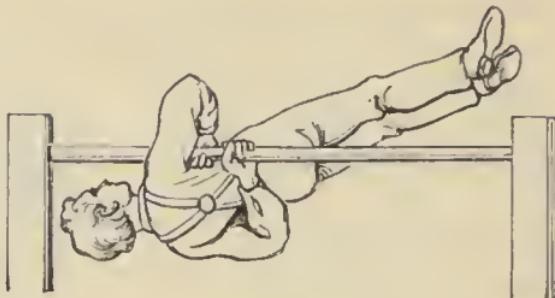


Fig. 149.

b.

- 1) Swing whilst in back-bent-arm-rest;
- 2) Change and re-change from back-bent-arm-rest to ordinary back-rest, with either ordinary or reversed grasp;
- 3) In back-bent-arm-rest, move body to the right or left by straightening right or left arm;
- 4) Back-lever in back-bent-arm-rest and sink to back-lever with straight arms;
- 5) Up-rise from back-hang to back-bent-arm-rest, one arm after the other;
- 6) The same exercise, both arms together (**Fig. 150**):
 - a. from the back-hang, head downwards and legs bent,



Fig. 150.

- b. from the back-hang with straight arms,
 - c. from the jump-up, shooting legs between arms,
 - d. from the back-hang, by raising the back (back-upstart) or with straight body (back up-rise);
- 7) Lever above the bar in bent-arm-rest:
- a. resting body on both elbows,
 - b. with free suspension of body between arms;
- 8) Lever on one elbow, with or without help of other arm (**Fig. 151**);

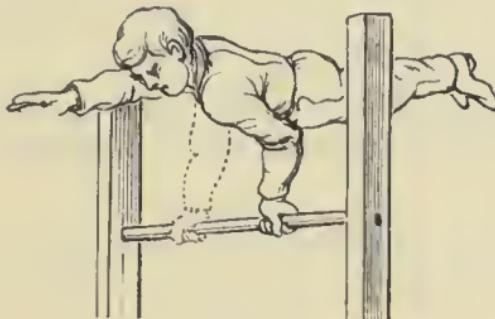


Fig. 151.

- 9) Change of lever from one elbow to the other;
- 10) Travel sideways in front- or back-bent-arm-rest;
- 11) Travel sideways in bent-arm-rest by means of turn from front to back and back to front.

c.

- 1) In rest, swing legs well backwards and drop them back again slowly to bar with,

- a. bending and straightening of arms,
 - b. change of grasp, alternately or both hands together,
 - c. movement of body sideways to and fro, hands grasping wide apart,
 - d. leg and body movements,
 - e. $\frac{1}{4}$ or $\frac{1}{2}$ turn to seat
 - a. between hands,
 - b. outside of hands,
 - f. hopping or travelling sideways, hands moving alternately or together,
 - g. circle of leg on to bar, squatting on bar, flank-front- or rear-vault, squatting or straddling over bar &c.;
- 2) In back-rest (or seat), jerk or swing legs forwards and alight as far as possible from the bar;
- 3) In back-rest, hold both legs extended forwards, straddle and close them and also swing them to right and left whilst so extended;
- 4) In balance-rest crossways over bar, one leg upon each side, and weight supported on the hands,
- a. raise and sink the back, with or without leg movements,
 - b. travel forwards and backwards, hands alternately or together,
 - c. swing forwards and backwards.
 - d. swing and cross legs in front- or back-swing;
- 5) Balance-rest on one arm;

- 6) In rest, travel sideways, also swing sideways over bar into balance-rest at end of each swing;
- 7) Leaning-rest along the bar.

d.

- 1) In cross-seat on bar, change from one seat to another by swinging one or both legs from one side of the bar to the other. To be practised with or without help of hands;
- 2) In cross-seat on one or both thighs change seat by turning body;
- 3) Combination of exercises Nos. 1 and 2;
- 4) Change from cross-seat to riding-seat by crossing legs over the bar and making half turn without help of hands;
- 5) Change of seat from one side of the bar to the other with front-vault-swing;
- 6) Travel in the various seats with or without change of seat.

VIII. The Up-start.

a.

The up-start should first be practised at a low bar and then afterwards at a higher bar as follows:

- 1) Swing, and at end of front-swing raise feet quickly, until insteps touch bar, both arms and legs being kept perfectly straight;
- 2) The same succeeded by up-rise to elbow-hang on one or both arms;

- 3) The same as No. 1 with succeeding up-rise to bent-arm-rest on one or both arms;
- 4) The same as No. 3 and push up to the rest;
- 5) The same to the rest in one movement (up-start);
- 6) Swing in elbow-hang, drop to ordinary hang at end of front-swing and up-start to the rest;
- 7) Raise legs to bar as in No. 1 and immediate up-start to the rest without a swing;
- 8) Swing backwards from the rest into ordinary swing under bar and up-start at the first back-swing, also continuously;
- 9) The same into the hang and up-start without a swing;
- 10) Up-start with circles, flank-front- or rear-vaults; squatting or straddling or somersault over bar.

b.

- 1) Swing with crossed arms, make half turn at end of back-swing, raise feet immediately and up-start (when right arm is under the left, it has reverse grasp and left has ordinary grasp; the turn is then made to the left);
- 2) Swing with combined grasp, turn at end of back-swing and immediate up-start without further swing:
 - a. when the right hand has reverse grasp, make half left turn and grasp other side of bar with left hand,

- b. when the right hand has ordinary grasp, make half right turn and grasp other side of bar with left hand;
- 3) The same as No. 2 with swings round, on, or over the bar as in a. 10.

IX. The Up-rise.

a.

- 1) Jump up to ordinary hanging position with ordinary or reverse grasp and swing forwards and backwards, once only;
- 2) The same repeatedly bending and straightening arms at end of back-swing;
- 3) Swing and at end of back-swing, jerk up to the elbow-hang;
- 4) Swing in elbow-hang and at end of back-swing jerk up to rest on fore-arms, the hands extended forwards;
- 5) The same to bent-arm-rest;
- 6) The same to straight-arm-rest;
- 7) Swing with ordinary grasp and at end of back-swing rise up to bent-arm-rest on one or both arms;
- 8) The same to momentary straight-arm-rest;
- 9) The same as No. 8 and circle round bar;
- 10) The same as No. 8, squatting or straddling over bar into the seat- or hock-circle backwards;
- 11) Same as No. 8, swing of one leg over bar, and knee-circle backwards, knee outside of hands;

- 12) Same as No. 8, squat of one leg through between hands, knee-circle backwards;
- 13) Repeated up-rise to momentary rest with under-swing each time.

b.

- 1) Jump up, swing forwards and at end of back-swing, up-rise with
 - a. bent arms,
 - b. straight arms (ordinary up-rise or back-up), with either ordinary, reverse, or combined grasp, also with change of grasp just when coming to the rest;
- 2) Repeated swing and up-rise;
- 3) Up-rise with reverse grasp to the rest on insides of forearms, also repeatedly by means of rolling over forwards;
- 4) Up-rise with twisted grasp of one hand and either ordinary or reverse of the other, also with twisted grasp of both hands
 - a. with change of grasp,
 - b. without;
- 5) Up-rise with hands close together, also one hand on top of the other, wide apart, or with arms crossed;
- 6) Swing with crossed arms and combined grasp, make $\frac{1}{2}$ turn at end of back-swing and uprise with the following back-swing.

c.

- 1) Up-rise from the rest, as a rule with ordinary grasp, commencing with

- a. under-swing,
 - b. back-swing,
 - c. turn-over forwards;
- 2) Front-vault over bar from the rest or from a knee-circle, with $\frac{1}{2}$ turn and then up-rise;
 - 3) Up-rise from various leaning-hangs, commencing with an under-swing.

d.

- 1) Up-rise with swing of either leg over bar from the right or left to the outside of hands, or between them,
 - a. without a turn,
 - b. with $\frac{1}{2}$ turn;
- 2) Exercise No. 1 with knee-circle forwards or backwards round the bar;
- 3) Exercise No. 1 with $\frac{1}{4}$ turn;
- 4) The same with Mill-circle in riding-seat, to the right or left side;
- 5) Up-rise with $\frac{1}{2}$ or $\frac{3}{4}$ turn and back-swing of one leg over bar (screw-mount);
- 6) Up-rise with $\frac{1}{2}$ turn to back-elbow-hang;
- 7) Up-rise with $\frac{1}{2}$ turn to back-bent-arm-rest;
- 8) Up-rise with $\frac{1}{2}$ turn to side-seat, also with $\frac{1}{4}$ turn only to cross-seat;
- 9) Exercise No. 8 and off with hock-circle, or knee-circle;
- 10) Up-rise, momentary squatting of legs and off with under-swing;
- 11) The same to kneeling on bar and off with turn-over forwards;
- 12) The same, squatting on bar and off with turn-over forwards;

- 13) The same to standing erect on bar and jump off forwards;
- 14) Up-rise with squatting, straddle- or flank-vault over bar to seat on bar and off with one or more hock-circles;
- 15) Up-rise with squatting, straddle-, flank- or wolf-vault over bar in one swing;
- 16) Up-rise with flank-vault over bar to the back-bent-arm-rest and circle forwards;
- 17) The same to the elbow-hang and circle forwards;
- 18) The same to ordinary back-hang and off with turn-over forwards, also with up-start and up-rise backwards;
- 19) Up-rise with front-vault to the leaning-rest along the bar;
- 20) Up-rise to lever
 - a. on one elbow,
 - b. on both elbows,
 - c. between the arms. In exercises a. and b. use reversed grasp and in c. either reversed or ordinary grasp;
- 21) Up-rise to lever on one elbow and turn on the same to the right or left above bar;
- 22) Up-rise with front-vault over bar to the ground;
- 23) Up-rise with front-vault over bar and immediate up-start, up-rise, circle, or long swing;
- 24) The same to rest on other side of bar and circle forwards or backwards;
- 25) Up-rise with somersault and with or without intermediate elbow-lever as in No. 20.

e.

- 1) Up-rise with turn, making a $\frac{1}{2}$ turn almost at end of front-swing and an immediate up-rise
 - a. to elbow-hang on one or both elbows,
 - b. to momentary bent-arm-rest on one or both arms,
 - c. to ordinary rest; this exercise is more difficult when started from the hanging position than when started from the rest.

In making the turn, either right or left hand may quit grasp, or both hands together, or one after the other;

- 2) Up-rise with turn and under-swing;
- 3) Up-rise with left turn and circle of right leg over bar;
- 4) Up-rise with left turn and front-vault to the right over bar;
- 5) Up-rise with turn and front-vault over bar, clear circle and then repeat exercise.

C. SWINGS AT, ON, OR ROUND THE BAR.

The swings at the bar lead to the ordinary hang or to the leaning-hang, the latter being a combined hang from arms and legs.

- All swings on to the bar commence from
- a. the jump-up,
 - b. the swing in ordinary hang, or leaning-hang,
 - c. the hang without swinging,

- d. the rest by dropping down to the hang,
- e. the rest by turning over forwards or swinging off backwards.

All swings on to the bar lead to a

- a. rest,
- b. seat,
- c. stand on the bar.

Swings round the bar (circles) lead to a

- a. rest, when started from the same,
- b. hang, when started from a hang, also to the stand when started from the stand.

X. Ordinary Circle.

a.

- 1) Leaning-hang with knees bent and insteps touching the other side of the bar (Fig. 131);
- 2) The same with straightening and bending of one or both legs (Fig. 132);
- 3) Same as in Nos. 1 and 2 with bending and straightening both arms;
- 4) The same with straight legs;

- 5) Circle round the bar from the standing position
 - a. with ordinary grasp and off with back-swing,
 - b. with reversed grasp and off with turn-over forwards,
 - c. with combined grasp,
 - d. with $\frac{1}{2}$ turn to side-seat, also off with turn-over;

- 6) Circle on to bar with hands either in ordinary position (Fig. 152), or wide apart, or close together, also with grasp of one hand on bar, the other hand grasping wrist, also with legs in straddle &c. and off with turnover forwards in ordinary, reversed, or combined grasp and circle of one leg backwards or sideways;
- 7) Circle on to bar
- from standing under bar,
 - from bent-arm-hang,
 - from straight-arm-hang,
 - to side-seat on one thigh by circling or squatting one leg over bar,
 - with $\frac{1}{2}$ turn to side-seat on both thighs,
 - with $\frac{1}{2}$ turn to the back-bent-arm-rest, or back-elbow-hang;
- 8) Circle on to bar from the front-elbow-hang on one or both arms. If hanging from one elbow, grasp the bar with the other hand (Fig. 153);
- 9) Circle on to bar from the bent-arm-hang after swinging several times forwards and backwards;

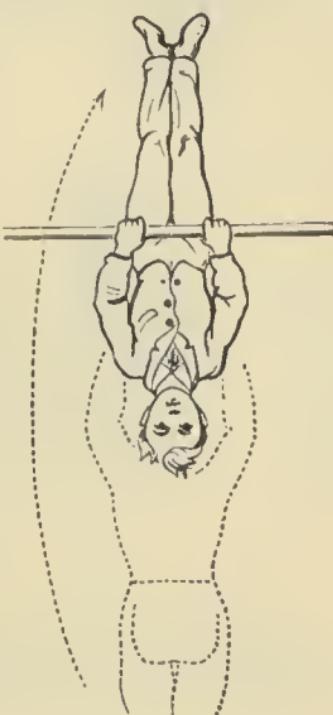


Fig. 152.

- 10) The same with straight arms,
 a. with ordinary grasp,
 b. with reversed grasp,
 c. with change of grasp at end of last back-swing.

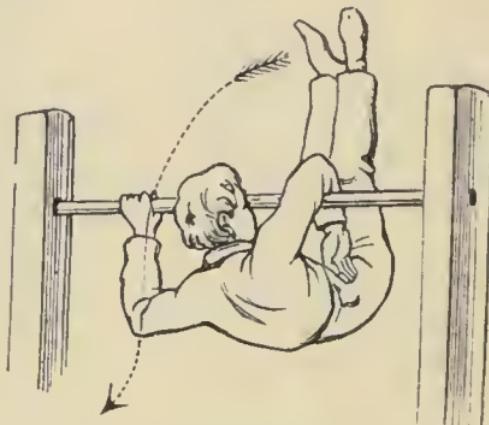


Fig. 153.

Well experienced gymnasts will be able to do these exercises with little or no swing, so that it is more a pull-up than a swing.

b.

- 1) Circle round the bar from the rest,
 a. backwards (ordinary circle) (Fig. 154),
 b. forwards with ordinary, or reversed grasp,
 c. backwards without touching the bar (clear-circle);
- 2) Circle backwards or forwards from the elbow-rest (Fig. 155) catching hold of legs;
- 3) Clear-circle over bar from the stand, the hang, or the rest, with ordinary, reversed, or combined grasp,

- a. to the stand,
- b. to the hang,
- c. with under-swing forwards to the stand,



Fig. 154.



Fig. 155.

- d. with additional circle to the rest. Also with turn-over backwards between the arms, up-rise, or $\frac{1}{2}$ turn, followed by the up-start &c.;
- 4) Ordinary giant-circle or long-swing (**Fig. 156**),
- a. from clear-circle over bar,
 - b. from ordinary swing,
 - c. from the rest;
- 5) Giant-circle and clear-circle alternately;
- 6) Circle forwards round the bar from the rest and up-rise again to rest;
- 7) With reversed grasp circle forwards over bar, throwing legs well up behind (giant-circle-swing);

8) The same from the lever on one or both elbows (see VII. b. 7).

With up-rise to the rest &c. (lever-circle).

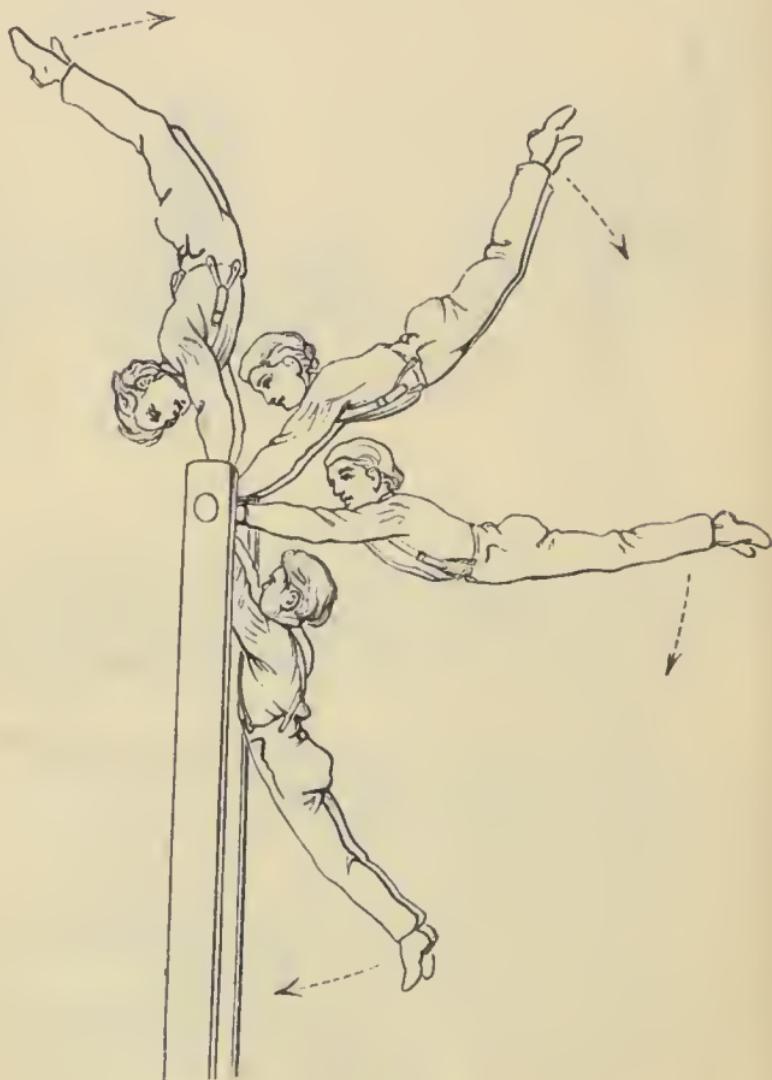


Fig. 156

- 9) Giant-circle backwards (reverse grasp Fig. 157) a., b. and c. as in No. 4.

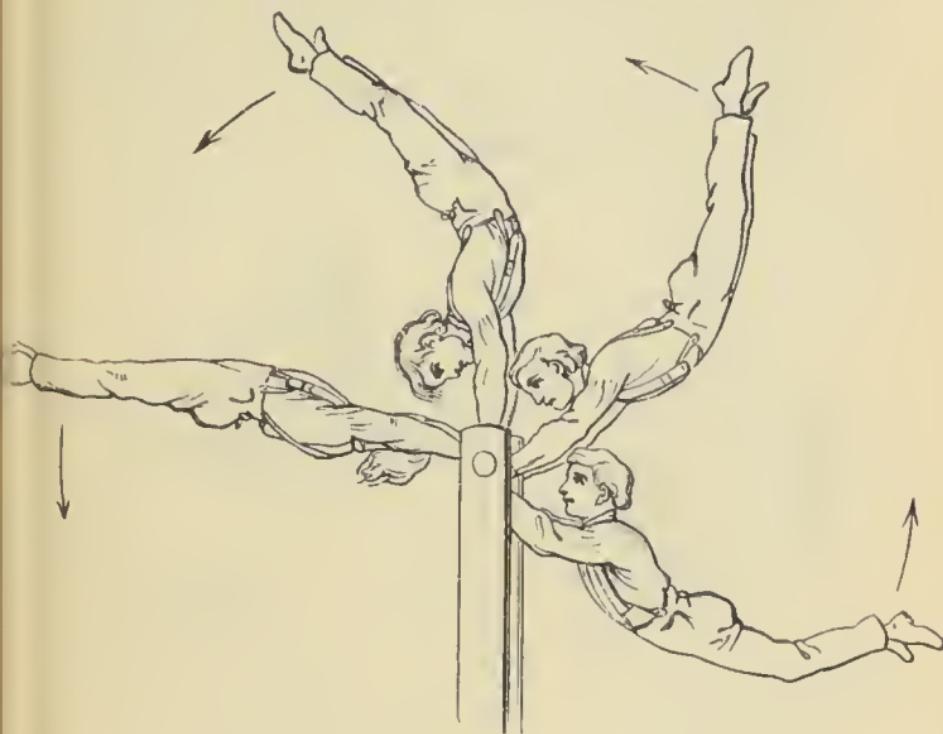


Fig. 157.

c.

- 1) From the stand under bar, swing arms backwards up, grasp the bar and swing both legs backwards up to the hang with straight body, head downwards (**Fig. 158**);
- 2) Leg movements in No. 1 position, such as thrusting &c.;
- 3) Same as in No. 1 and circle on to bar by swinging legs backwards up;

- 4) Pull up slowly on to bar from the back-hang, head downwards (Fig. 158);
- 5) Swing the body to and fro in the leaning hang and circle forwards on to bar as before;
- 6) Exercise as in No. 5 to seat, followed by an additional circle forwards round the bar to seat again;

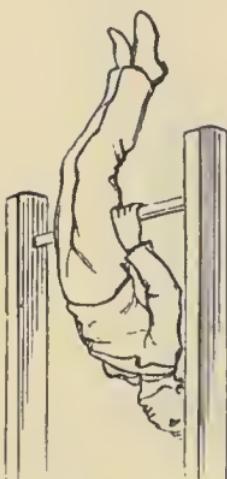


Fig. 158.

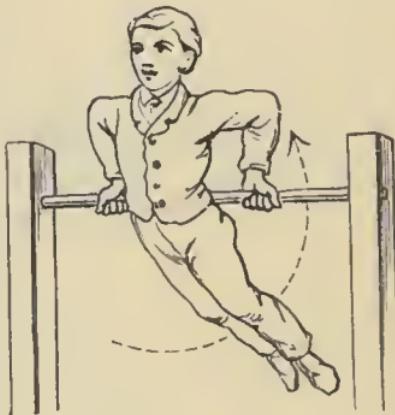


Fig. 159.

- 7) From the stand (facing bar) shoot legs backwards between arms and either pull or swing up to the seat as in the previous exercises;
- 8) The same from the hang with an additional circle forwards round the bar in bent-arm-rest (**Fig. 159**);
- 9) The same with reverse grasp and circle-forwards with straight arms (in back-rest);
- 10) The same and circle backwards in back-bent-arm-rest;

- 11) In the same position circle backwards and forwards alternately;
- 12) Clear-circle backwards (in back-rest) with ordinary grasp and with front-lever of legs;
- 13) Swing as in No. 5 and shoot forwards over bar down to the ground;
- 14) Swing as in No. 5 and circle over bar with a $\frac{1}{2}$ turn to rest on other side of bar;
- 15) Circle forwards in back-rest and circle backwards in rest. alternately, with $\frac{1}{2}$ turn when above the bar;
- 16) Giant-circle forwards from the back-rest
 - a. to seat without twist of arms in the shoulders.
 - b. to rest with twist of arms in the shoulders.

XI. Arm-Circles. (Muscle-Grind.)

- 1) Ordinary circle
 - a. without turn to elbow-hang (Fig. 144),
 - b. with $\frac{1}{2}$ turn to the back-elbow-hang (Fig. 145) and swing in the same;
- 2) Swing in ordinary hang and jerk up to elbow-hang, a. and b., as in No. 1;
- 3) Circle backwards in front-elbow-hang and forwards in back-elbow-hang (the muscle-grind),
 - a. with both arms,
 - b. with hang on one elbow, hand of other arm grasping bar,
 - c. the same, but changing position of arms,
 - d. with hang on one elbow, the other arm extended sideways along the bar,

- c. the same, but changing position of arms,
- f. with both arms extended sideways (hands grasping bar),
- g. with elbow-hang on one arm and ordinary hang on the other,
- h. the same, but changing position of arms,
- i. with both arms extended forwards (Fig. 143), or backwards and without grasping bar;
- 4) Muscle-grind sideways on one arm, free arm to be extended high up;
- 5) Muscle-grind backwards from the back-hang,
 - a. with bending of body at hips, when above the bar,
 - b. with straight body throughout;
- 6) Muscle-grind backwards from the front-hang, changing with ordinary circle;
- 7) Muscle-grind forwards from the back-hang changing with ordinary circle;
- 8) Change from muscle-grind backwards in the front-hang to the same forwards in the back-hang by making $\frac{1}{2}$ turn when over the bar after each circle.

XII. Instep-Circles.

- 1) From rest on bar with reverse grasp swing off with circle forwards, body either quite straight or back slightly bent,
 - a. with legs closed and straight,
 - b. with legs closed and bent,
 - c. with legs straddling,
 - d. with one leg extended to the outside, or inside, or backwards,

- e. with one knee raised,
- f. with one knee raised and the other leg extended sideways or backwards &c.

By raising the back, the gymnast will touch the bar with

- a. the thighs,

- b. the knees (off with circle forwards in this position),
- c. the insteps (off with circle forwards in this position (**Fig. 160**)),



Fig. 160.

- d. the soles, or edges of the feet (off with circle forwards),
- e. finally with the feet over the bar (off with circle forwards).

All the above positions of legs are only momentary and legs should be closed before touching the ground;

- 2) If the exercise in No. 1, c. be made right round the bar, back to the rest again, it is called the instep-circle, for instance:
- instep-circle forwards with legs straddling (**Fig. 161**);



Fig. 161.

- instep-circle forwards with one leg extended sideways and the other either hanging straight down or kneeling between the hands,
- instep-circle forwards or backwards with raised knee, the instep touching bar between or outside the hands or
- instep-circle forwards with legs closed (bent, or straight), knees between the hands, or to the right or left of them, also backwards with bent legs;
- Circle backwards with legs straddling and soles of feet touching bar;
- Instep-circle as in No. 2, a., changing with ordinary circle forwards;
- Up-start or up-rise and swing off as in No. 1;
- The same and instep-circle as in No. 2.

XIII. Knee-Circles.

a.

- 1) Swing both feet up on to bar as in **Fig. 162**, to cross-leaning-hang on hands and feet,

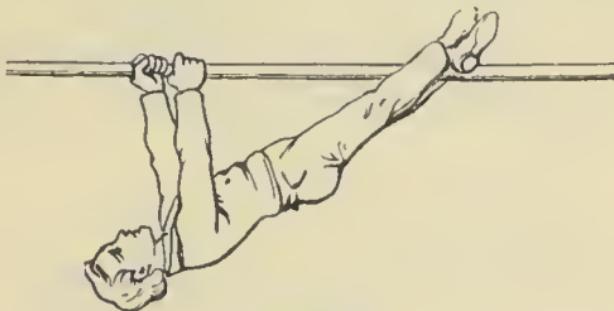


Fig. 162.

also with both feet and one hand, or with both hands and one foot and change from one position to another;

- 2) The same to cross-leaning-hang backwards (**Fig. 163**);

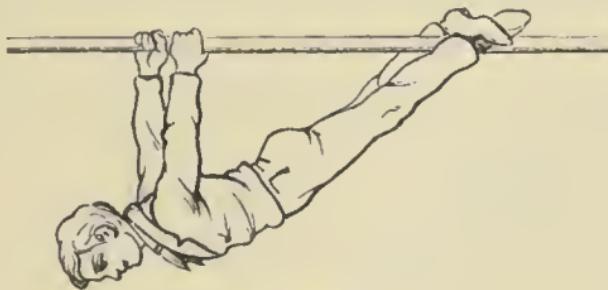


Fig. 163.

- 3) Change from exercise in No. 1 to the one in No. 2;

- 4) Cross-leaning-hang on one knee and both hands, also with one hand and one knee and change from hang on right knee and right hand to left knee and left hand, with more or less swing;
- 5) Cross-leaning-hang on one elbow and on one knee, either on right elbow and right knee, or right elbow and left knee (**Fig. 164**), also change from one position to another;

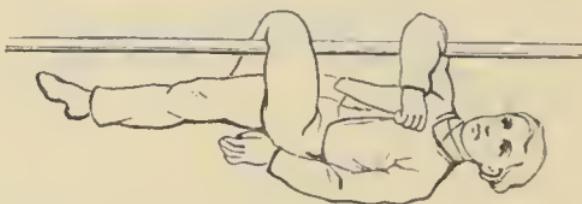


Fig. 164.

- 6) Change from hands to elbows in the various cross-leaning-hangs;
- 7) Extend free arm sideways or upwards when in the various cross-leaning-hangs;
- 8) Swing in cross-leaning-hang and change from one cross-leaning-hang to another;
- 9) Change from cross-leaning-hang to side leaning-hang and vice versa;
- 10) Change from cross-leaning-hang forwards to the same backwards with $\frac{1}{2}$ turn (hammock) (**Fig. 165**);
- 11) Cross-leaning-hang with feet against uprights.

These exercises are rendered more difficult by releasing grasp of one hand, or of

one foot, or of one hand and one foot of the same side or of opposite sides;

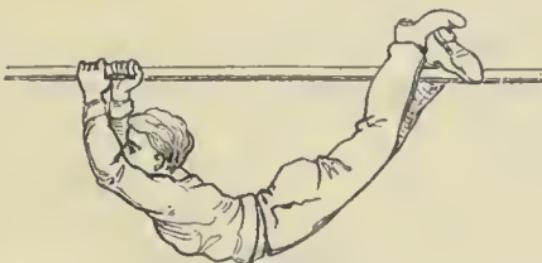


Fig. 165.

- 12) Cross-leaning-hang on one knee, the toes of the other foot resting against bottom of bar (knee-hang-lever) and hands releasing grasp.

b.

- 1) Side-leaning-hang on hands and insteps
 - a. with feet between the hands (Fig. 131).
 - b. with feet outside of hands, one at each side,
 - c. one foot between and the other outside;
- 2) Side-leaning-hang as in No. 1, a. and push body through to the nest (Fig. 166);
- 3) The same, one or both feet outside of hands;



Fig. 166.

- 4) The same, hanging on one hand and one foot;
- 5) The same, placing one or both insteps on one arm or both;
- 6) The nest crossways from the cross-hang;

- 7) The nest from the rest, falling forwards to the hang if in reverse grasp and backwards if in ordinary grasp;
- 8) The nest with hanging on heels, the hands catching hold of toes, heels resting on top of bar.

c.

- 1) Side-leaning-hang on one or both knees with ordinary, or combined grasp, also with hanging on one hand, or on the upper-arm
 - a. with right knee to right side of right hand,
 - b. with right knee between the hands,
 - c. with right knee to left side of left hand,
 - d. with both knees to right side of right hand (**Fig. 167**),
 - e. with right knee to right side of right hand and the left between the hands,
 - f. with both knees between the hands,
 - g. with both hands between knees.

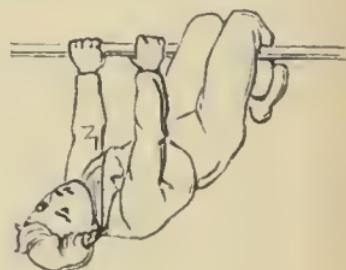


Fig. 167.

- 2) Swing in all these various positions of the side-leaning-hang;
- 3) Release hang on knees by straightening them and with moderate swing travel sideways along the bar;
- 4) Change from one kind of side-leaning-hang to another, first without and then with a swing, as follows:
 - a. change hands, hanging on one knee,
 - b. change knees, hanging on hands,
 - c. change hands first and then knees,
 - d. change knees first and then hands, also with travelling;
- 5) Change as in No. 4 with a turn underneath the bar from one side of the bar to the other.

d.

Side-leaning-hang on one knee, hands either inside, outside, or at both sides of the knee (**Fig. 168**), also on one hand only, or on one upper-arm.

All the following exercises can be practised either from the stand or from the swing, the easiest method being after swinging backwards and forwards several times in the respective leaning-hangs.

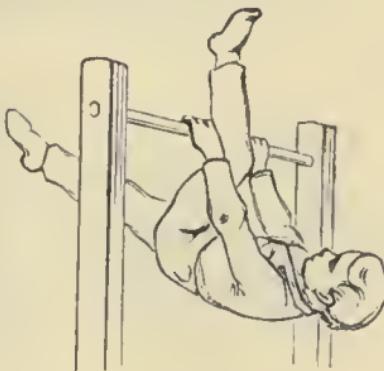


Fig. 168.

- 1) Knee-circle forwards up to seat on one thigh, after one or more swings backwards and forwards;
- 2) The same backwards;
- 3) The same forwards with swing forwards over bar of other leg to side-seat on both thighs;
- 4) The same forwards with $\frac{1}{4}$ turn to riding-seat;
- 5) The same forwards with $\frac{1}{2}$ turn to side-seat on one thigh;
- 6) The same, changing knee by making $\frac{1}{2}$ right and left turn alternately;
- 7) Change knee by circling leg over bar, or by squatting it between hands,
 - a. when in the rest,
 - b. when in the hang;
- 8) Knee-circle forwards or backwards with one hand grasping the hanging knee and the other the bar;
- 9) Knee-circle round the bar forwards (**Fig. 169**) or backwards (**Fig. 170**);

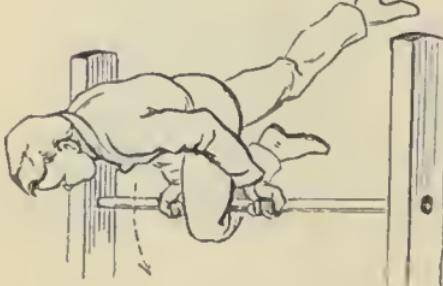


Fig. 169.



Fig. 170.

- 10) Knee-circle forwards or backwards with one or both hands passing underneath the bar and grasping the leg on which the circle is made, if with one hand, either from the inside, or the outside;
- 11) Knee-circle forwards touching the bar with instep of free leg, which is either bent or straight, thus: from side-seat on left thigh swing right leg up until instep leans against the bar, then quit grasp of right hand and circle forwards (**Fig. 171**);

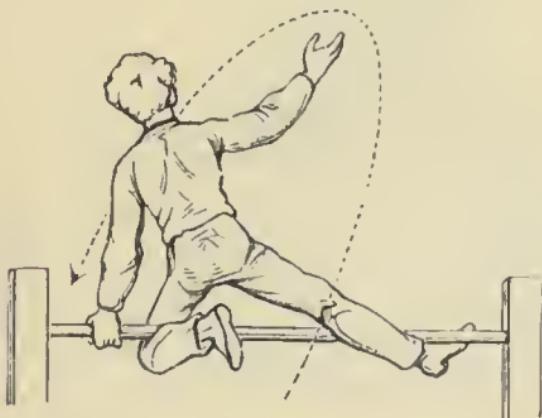


Fig. 171.

- 12) The same circling backwards;
- 13) Hammock-hang-circle forwards or backwards (see Fig. 158 for position).

XIV. Circles over Bar.

Knee-circle forwards over bar alighting at other side of bar.

- 1) With right knee between the arms and alighting by swinging the left leg over the bar to the right or left side,
 - a. without a turn (Fig. 172),

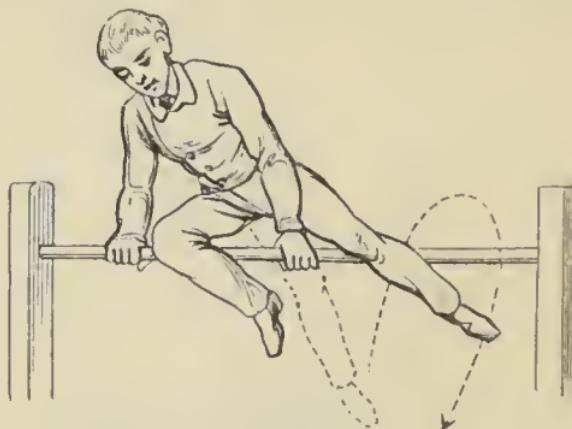


Fig. 172.

- b. with a $\frac{1}{4}$ left turn,
- c. with a $\frac{1}{4}$ right turn,
- d. with a $\frac{1}{2}$ right turn,
- e. with squatting of left leg between the arms;
- 2) With the right knee outside the right hand, alighting by swinging the left leg to the right side over bar.

- a. without a turn (flank-swing),
- b. with a $\frac{1}{4}$ left turn (front-vault-swing) (Fig. 173),

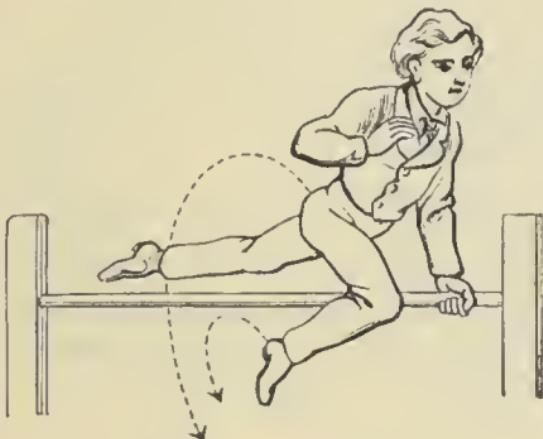


Fig. 173.

- c. with a $\frac{1}{4}$ right turn (rear-vault-swing),
 - d. with a $\frac{1}{2}$ left turn (screw-vault-swing),
 - e. with rear-vault-swing and a $\frac{1}{2}$ right turn;
- 3) Knee-circle as in No. 1, a. to side-seat on the bar and off with hock-circle backwards;
- 4) The same as in No. 1, e. to side-seat and off with hock-circle backwards;
- 5) The same as in No. 2, a. to seat on the bar and off with ordinary circle backwards;
- 6) The same as in No. 1, d. to rest and off with under-swing;
- 7) The same as in No. 2, d. to rest and off with ordinary circle forwards;

- 8) The same as in No. 2, e. to rest and off with ordinary circle forwards or with under-swing;
- 9) The same as in No. 2, d. to the ordinary hang and off with turn-over backwards between arms underneath the bar;
- 10) The same as in No. 2, e. to the ordinary hang, ordinary circle to the rest and off;
- 11) The same as in No. 2, b. to the leaning-hang on the left knee, then change of leaning-hang underneath bar and repetition of the whole exercise with the swing in 2, b.;
- 12) The same as in No. 2, b. with additional $\frac{1}{4}$ l. turn to the leaning-hang on the left knee and rise to rest, left leg quitting the bar.

XV. Circles in Riding-seat (Mill-exercises).

- 1) Riding - seat with straight legs (**Fig. 174**) one or both hands grasping bar in front of body;
- 2) Drop sideways from seat in No. 1 to the hang, head downwards;
- 3) Riding - seat with straight legs and $\frac{1}{4}$ turn to side-seat, and in this position drop forwards (**Fig. 175**) or backwards (**Fig. 176**) to the hang, head downwards;



Fig. 174.

- 4) These exercises, when done round the bar, are called "mills" and can be done forwards, backwards or sideways, the last one also with one hand only;



Fig. 175.



Fig. 176.

- 5) Mill-swing forwards, backwards or sideways on to the bar,
 a. from the stand,
 b. from the hang, head downwards,
 c. with previous swing in the ordinary hang.
 The same exercises with a turn.

XVI. Seat-circles.

The seat is on both thighs with grasp of hands between or outside of legs, or both on one side, or one outside and the other between, or only one hand may grasp. The legs are more

or less bent (**Fig. 177**) or straight (**Fig. 178**), and may touch the bar either with thighs, hocks, calves, or even with heels.



Fig. 177.



Fig. 178.

- 1) Drop down forwards or backwards from side-seat on both thighs to the leaning-hang;
- 2) Circle off forwards or backwards in sitting position; when backwards, practise with hands between the legs (**Fig. 179**) to the stand, but when forwards, drop only to the hang, head downwards;
- 3) Seat-circle round the bar forwards or backwards;
- 4) The same with change of grasp;
- 5) Seat-circle on to bar from the leaning-hang, or the stand;
- 6) Seat-circle over bar to ground;



Fig. 179.

- 7) Seat-circle forwards or backwards, on, or round the bar, with grasp of only one hand, the other passing underneath the bar and grasping knee;
- 8) The same, both hands catching hold of knees (tumbling-mill) (**Fig. 180**).



Fig. 180.

XVII. Hock-circles.

- 1) Hang in hocks (**Fig. 181**) and raise body;
- 2) The same, grasping feet;
- 3) Hang on one knee, the other knee being placed on the instep of the former (**Fig. 182**), or extended;

- 4) Travel sideways changing from hand-hang to hock-hang and vice versa;
- 5) Swing in hock-hang;

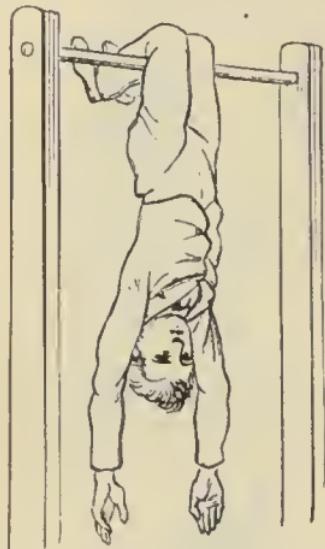


Fig. 181.



Fig. 182.

-
- 6) Swing off the bar in hock-hang to the stand,
 - a. with swing,
 - b. without swing,
 - c. at end of front-swing;
 - 7) Drop down from seat to the hock-hang (**Fig. 183**);
 - 8) Hock-swing off the bar from the seat;
 - 9) Swing in hock-hang,
 - a. to seat,
 - b. with a turn to the hang on hands or arms,
 - c. to the rest;

- 10) Hock-circle from seat on bar;
- 11) Hock-circle forwards or backwards on one knee (Fig. 182);

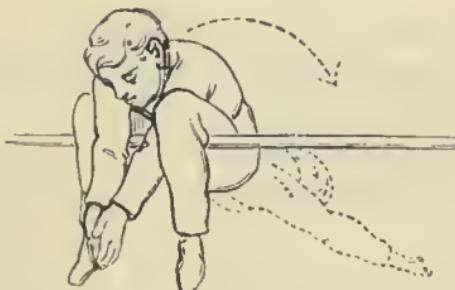


Fig. 183.

- 12) Swing off from hock-hang on one knee (Fig. 182) to the stand;
- 13) Hock-swing off, or round the bar to the hang on arms, or to the bent-arm-rest (with back to bar), also with $\frac{1}{2}$ turn to the hang on arms, or hands, or to the rest.

D. VAULTING AT HORIZONTAL BAR.

XVIII. Vaults at a Bar placed at height of chest.

- 1) Jump, with or without a run, to the rest on the bar, with ordinary, reverse, or combined grasp from a board in front of the bar, gradually drawing it further away;
- 2) The same with $\frac{1}{2}$ turn to seat and off with seat-circle backwards;

a. Squatting, straddle and wolf-vaults.

- 1) Jump on to bar, raising one or both knees;
- 2) The same, squatting one or both legs on bar;
- 3) Squat over bar to seat;
- 4) Squatting-vault over bar (**Fig. 184**) also with turn;
- 5) Squatting - vault sideways or backwards;
- 6) Jump on to bar, swinging one leg sideways;
- 7) Jump on to bar, legs straddling;
- 8) The same to stand on bar (legs straddling);
- 9) Straddle-vault over bar (**Fig. 185**);
- 10) The same with a turn;



Fig. 184.

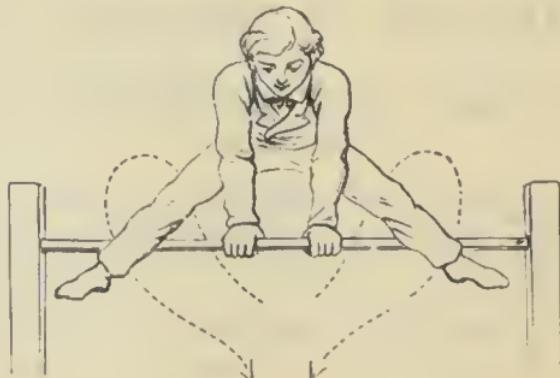


Fig. 185.

- 11) Wolf-vault to standing position on bar;
- 12) The same over bar (**Fig. 186**) with or without a turn.



Fig. 186.

b. Flank-, front- and rear-vaults.

- 1) Jump with flank-swing to the rest;
- 2) The same to leaning-rest along bar;
- 3) The same (**Fig. 187**) over bar to seat, also to the stand (flank-vault);
- 4) Jump with backward-swing of legs to the rest (preliminary to front-vault);
- 5) The same, swinging legs backwards and to the side, to leaning-rest along bar;
- 6) The same over bar to cross-seat at other side of bar;
- 7) Front-vault over bar (**Fig. 188**);
- 8) Jump with rear-vault-swing to the rest;

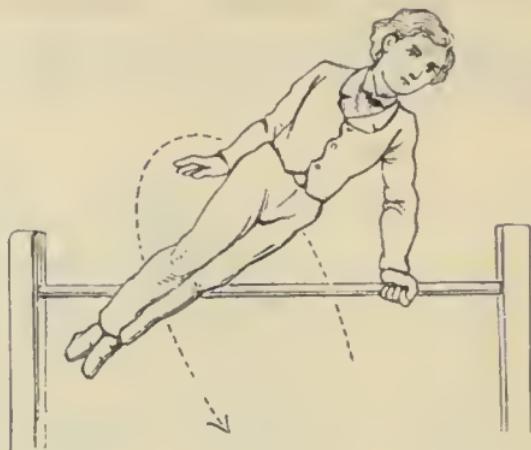


Fig. 187.

- 9) Rear-vault to cross-seat;
- 10) Rear-vault over bar (**Fig. 189**) to the stand;
- 11) Flank-, rear- or front-vault with a turn;

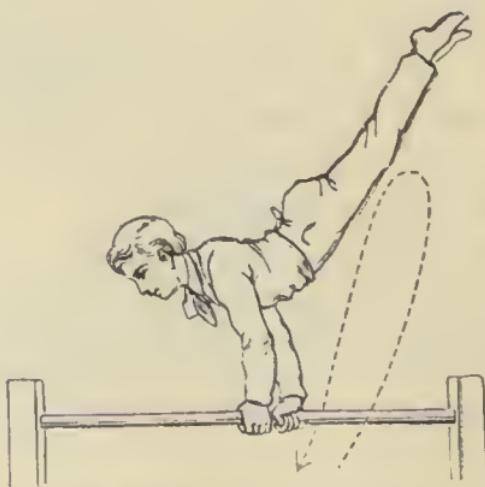


Fig. 188.

- 12) The same exercises with rest on one or both hands, also with jump off one foot only.

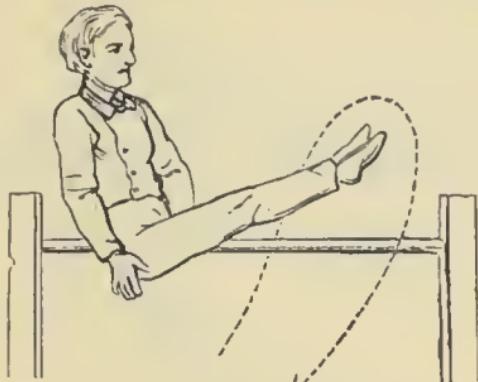


Fig. 189.

c. Somersaults and knee-jumps.

- 1) Somersault from the rest (Fig. 190);
- 2) From lying position on bar, resting on inside of forearms;
- 3) Somersault from the stand, resting neck against bar;
- 4) Roll backwards from the riding-seat with straight legs, by bending backwards and grasping bar above head;
- 5) Knee-jump forwards from kneeling on bar;



Fig. 190.

- 6) Knee-jump obliquely forwards from kneeling crossways on bar.

d. Leg Circles.

- 1) Half circle of right leg to the outside of hands, or between them (**Fig. 191**);



Fig. 191.

- 2) The same with $\frac{1}{4}$ or $\frac{1}{2}$ left turn;
- 3) Circle of right leg from the right, passing under both hands;
- 4) Half circle of right leg from the left, passing under left hand (**Fig. 192**);
- 5) The same with $\frac{1}{4}$ or $\frac{1}{2}$ left turn;
- 6) Circle of right leg from the left, passing under both hands;
- 7) Above exercises with both legs together.



Fig. 192.

These exercises can also be practised on a high bar, prefaced with the up-start, or up-rise.

THE DOUBLE HORIZONTAL BAR.

I.

The apparatus is composed of two ordinary horizontal bars placed one above the other, about 8 inches apart.

a.

Exercises from the hang with ordinary, reverse, or combined grasp of one hand on the top bar and the other on the bottom bar.

- 1) Change grasp from top to bottom bar and vice versa, one hand after the other on near-side of bars;
- 2) The same with both hands together;
- 3) Same as in No. 1, travelling sideways;
- 4) Same as in No. 2, travelling sideways;
- 5) Same as Nos. 1 to 4, grasping off-side of bars (**Fig. 193.**)

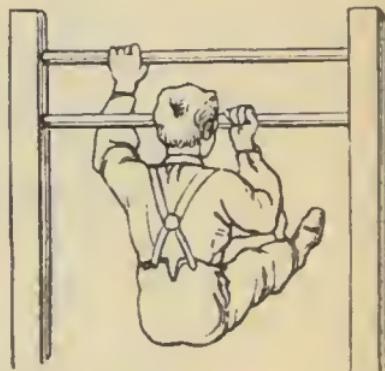


Fig. 193.

b.

Both hands grasp either from off- or near-side of either top or bottom bar.

- 1) Hop from one bar to the other;
- 2) The same, one hand grasping top, the other bottom bar;
- 3) The same, travelling sideways.

c.

Exercises from the cross-hang on top, or bottom bar, or on both.

- 1) Change from one bar to the other, one hand after the other;
- 2) Travel forwards and backwards with one hand after the other, or both together;
- 3) The same with leg movements, especially swinging legs up to the hang, head downwards.

d.

Exercises with swing in the hang on one or both bars.

- 1) Change of various grasps at end of back-swing or front-swing;
- 2) Travel sideways, one hand after the other;
- 3) The same, both hands together.

II.

With the top bar at height of ordinary reach and the lower at height of hips.

a.

Hands grasping top bar.

- 1) Swing backwards, raising one or both knees;
- 2) The same and squat one or both legs on lower bar;
- 3) Hammock-hang on one or both insteps;
- 4) Squat over bar to seat (**Fig. 194**), also squatting-vault over lower bar to standing position;
- 5) Squat over lower bar to seat and squat back again, or circle on to top bar;
- 6) Straddle and close legs at end of back-swing;
- 7) The same to straddle-stand on lower bar;
- 8) Straddle over bar to seat, also straddle-vault over lower bar.



Fig. 194.

b.

- 1) Squat or straddle on to lower bar, then jump to rest on top bar and off with under-swing;
- 2) From standing in erect, or squatting, or straddling position on the lower bar, circle on to top bar;
- 3) The same with knee-circle, or ordinary circle round top bar.

c.

Hang with one hand on top bar and rest with the other on lower bar.

- 1) Half circles or circles of one or both legs from the right or left, with or without a turn;
- 2) Swing legs in flank-, front- or rear-vault-swing to the seat on bar;
- 3) The same to the front-, back- or side-leaning-rest;
- 4) Flank-, rear- or front-vault over lower bar, with or without turn.

d.

Rest on the lower bar and hock-hang on the top bar.

- 1) With hand-balance (**Fig. 195**);

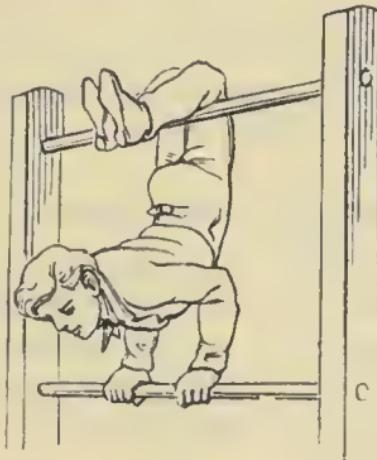


Fig. 195.

- 2) With head-balanced;
- 3) With shoulder-balanced.

Many exercises can also be practised on the double bar with a storming board placed on the lower bar.

THE TRAPEZE.

Apparatus: A Trapeze with a bar 2 feet long and $1\frac{1}{4}$ inch thick.

As a rule these exercises are commenced without any previous swing of the trapeze, but with many exercises, such as those of groups I, III, IV and V, the trapeze is previously swung in usual pendulum fashion, or is made to describe a circle. In the following exercises attention is paid more particularly to those which are trapeze-exercises pure and simple, though there are many horizontal bar-exercises which can be applied to the trapeze.

I. Exercises hanging on Hands.

- 1) Hang on bar and change from one grasp to another by turning over backwards underneath the bar, or by releasing grasp of one hand and turning to right or left;
- 2) Shoot through backwards to the nest, both hands on bar;

- 3) Ordinary front-lever, grasping either bar or ropes;
- 4) Back-lever, grasping either bar or ropes;
- 5) Lever on one arm from exercise in No. 4 with a $\frac{1}{4}$ turn (side-lever on one arm);

- 6) Circle on to bar, hands either grasping bar, or bar and rope, or ropes only, off with circle forwards;
- 7) Clear-circle;
- 8) Swing up to the balance on the inside of fore-arms, legs straddling against ropes;
- 9) Hand-balance, the ropes twisted round the feet or knees;
- 10) Repeated clear-circle round the bar.

II. Exercises hanging on Insteps.

In cross-stand:

- 1) Swing legs up to the leaning-hang, the lower part of the legs crossed and both heels on the bar;
- 2) Hang with both insteps against one rope, face to bar, or back to bar (Fig. 196);
- 3) Nest, hands on the bar and one or both feet against the ropes, in side-hang or cross-hang;
- 4) Hang on insteps, one foot against each rope. legs straddling (Fig. 197);

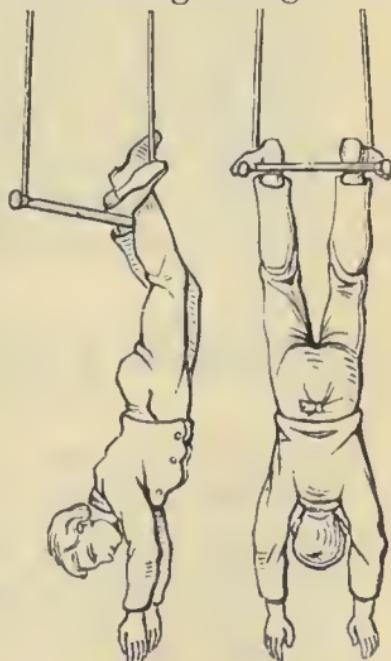


Fig. 196.

Fig. 197.

- 5) Hang on heels, feet in front of bar and heels at the junction of bar and ropes; to be practised at first with help of hands;

- 6) In hammock-hang on insteps swing up to the bar (**Fig. 198**);
- 7) Drop backwards from the seat, legs straddling, to the hang on insteps as in No. 4;
- 8) Cross-hang on insteps, one against each rope, the right leg in front on right side of bar and the left leg behind on left side of bar, feet turned outwards. It is more difficult when the right foot is behind and the left foot in front.



Fig. 198.

III. Exercises hanging from one Knee or from Hocks.

- 1) Knee- or hock-hang on bar, also jerk off to the standing position;
- 2) Change knees in the knee-hang on one side of bar, hands grasping bar;
- 3) The same from one side of bar to the other;

- 4) Lever in cross-hang on one knee, the other leg being placed across the instep of the former and with its own instep under the bar;
-
- 5) From the hammock-hang on knees swing round the bar to the top of the same by releasing one hand and one leg (**Fig. 199**);
- 6) Hock-hang from both ropes, insteps under the bar (**Fig. 200**). In this exercise as well as in No. 7 and No. 8 the knees are bent and press towards each other;

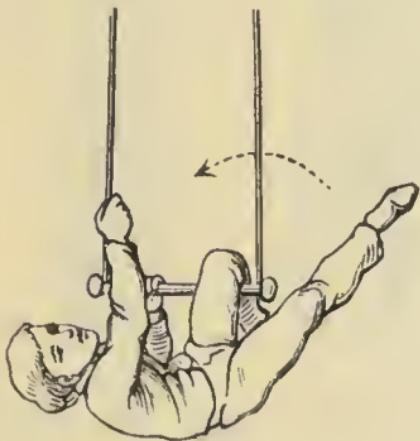


Fig. 199.



Fig. 200.

- 7) The same, pressing bottom of feet against the bar (**Fig. 201**). In the exercises No. 6 and No. 7 the straddling is done from the outside;

- 8) The same, bar in front of knees (**Fig. 202**), the straddling is done from the inside;
- 9) Knee-hang of one knee on one rope, instep or sole of the other foot (**Fig. 203**) pressed against the other rope.



Fig. 201.

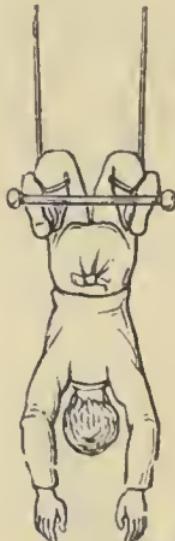


Fig. 202.



Fig. 203.

IV. Exercises hanging from the Arms.

- 1) Hang from elbow joints, back to bar or face to bar;
- 2) Hang from upper-arms, arms extended forwards, also with hands grasping legs which are raised forwards;
- 3) The same backwards (back to bar), hands grasping heels;

- 4) The same, arms extended sideways,
 - a. face to bar,
 - b. side to bar,
 - c. back to bar (**Fig. 204**);
 - 5) Armhang, embracing the ropes,
 - a. face to bar (**Fig. 205**), hands grasping each other,
 - b. back to bar;
-

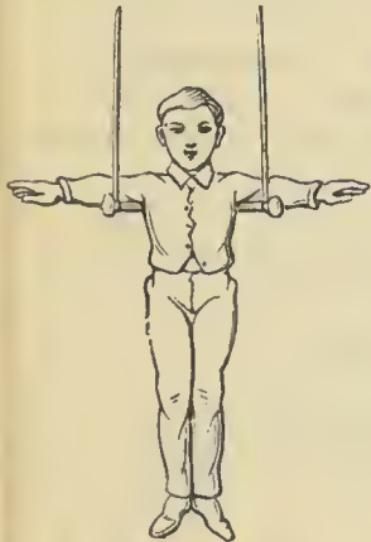


Fig. 204.

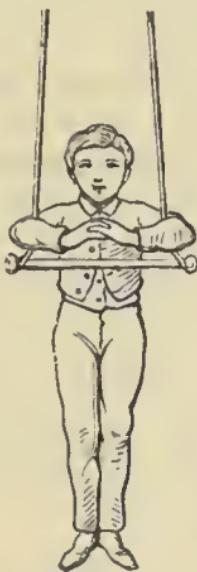


Fig. 205.



Fig. 206.

- 6) Muscle-grind backwards from front-elbow-hang;
- 7) Muscle-grind forwards from back-elbow-hang;
- 8) Armhang on the ropes and back-bent-arm-rest on the bar with ordinary grasp,
 - a. with ropes in front of upper-arms,
 - b. with ropes behind upper-arms (**Fig. 206**).

V. Exercises in Bent-arm-rest.

- 1) Front-bent-arm-rest (see Fig. 148);
- 2) Side-bent-arm-rest on one arm (see Fig. 147);
- 3) Back-bent-arm-rest (see Fig. 150);
- 4) Change from front- to back-bent-arm-rest on the same side of the bar;
- 5) The same from one side of bar to the other (see Fig. 149);
- 6) Lever in front- or back-cross-hang;
- 7) Jump to the rest on bar;
- 8) Pull and push up to the rest on bar, hands grasping bar or ropes;
- 9) Up-start;
- 10) Lever on both elbows above bar from bent-arm-rest;
- 11) The same without resting on elbows;
- 12) Lever on one elbow, free hand extended backwards and grasping ropes;
- 13) Turn from rest to seat, one hand grasping rope (Fig. 207), and off with tumbling mill-swing, or seat-circle-swing forwards, or drop backwards to the hock-hang;
- 14) Lever under bar in back-bent-arm-rest with reverse grasp;
- 15) Circle backwards on to bar from the knee-leaning-hang;



Fig. 207.

- 16) Slow circle forwards or backwards from the back-rest;
- 17) Circle backwards from the back-rest into the nest, hands and heels on bar;
- 18) Turn-over forwards under bar from the back-hang and circle on to bar;
- 19) Slow circle forwards from the front-rest.

VI. Exercises in combined Hanging and Standing positions (Hanging-stand).

- 1) Swing up to hock-hang on bar, grasp ropes and
 - a. with forward seat-circle rise up on to bar (straight arms),
 - b. with ordinary circle rise up on to bar;
- 2) Nest or hammock-hang (**Fig. 208**), feet on bar and hands grasping ropes;

- 3) Swing up backwards (**Fig. 209**) to kneeling or squatting position on bar, hands grasping ropes (compare group VII, exercises No. 3 and No. 4, Fig. 214);



Fig. 208.

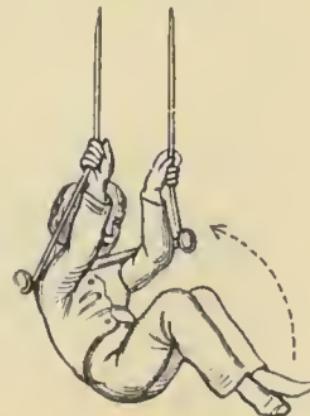


Fig. 209.

- 4) Turn-over forwards or backwards (**Fig. 210**) from kneeling or standing position back again to the same. Also
- head-balance on bar, hands grasping ropes as high as possible,
 - stand with feet on bar without help of hands, especially in cross-stand &c.;
- 5) Front- or back-lever in hanging-stand (**Fig. 211**) also with stand on one foot only, both hands on ropes;

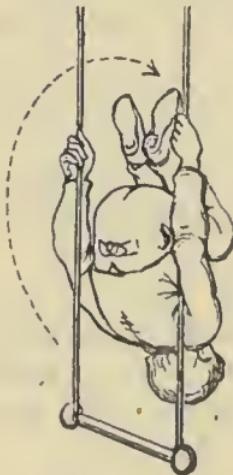


Fig. 210.

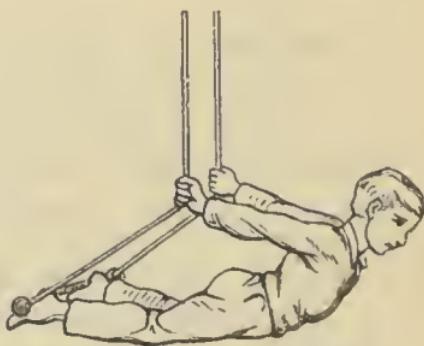


Fig. 211.

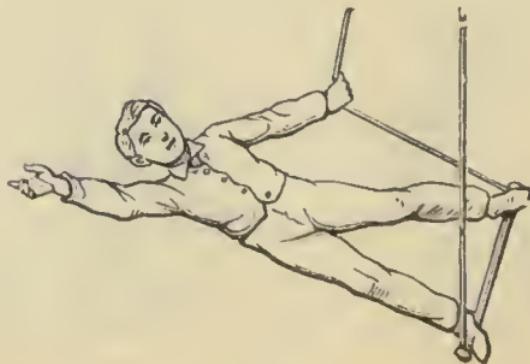


Fig. 212.

- 6) From straddle position on bar, drop with quarter turn, releasing grasp of one hand, to side-lever in the hanging-stand as in (**Fig. 212**).

VII. Exercises in Sitting position.

- 1) Knee-circle up on to bar, forwards or backwards, hands on bar or ropes (**Fig. 213**);
-



Fig. 213.

- 2) The same round the bar;
 3) Seat-circle up on to bar forwards or backwards, hands on bar or ropes;
 4) The same round the bar (**Fig. 214**);
 5) Seat-circle from seat to seat, hands grasping ropes as high as possible (compare exercise No. 4 of group VI and Fig. 210);

- 6) Lie across or along the bar with either face or back to bar, with or without help of hands; .
- 7) Off with circle forwards, hands grasping ropes or bar in front of body (**Fig. 215**).



Fig. 214.

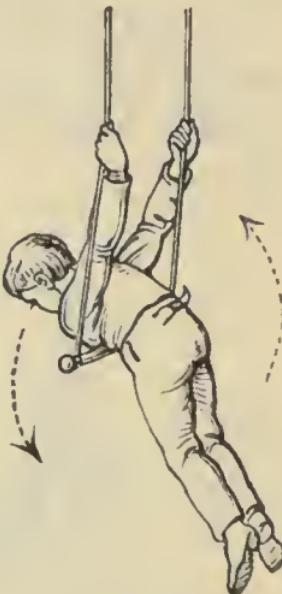


Fig. 215.

VIII. Exercises in Kneeling position.

- 1) Mill-circle forwards on to bar, one hand on bar the other on rope, also the same round the bar;
- 2) Mill-circle backwards on to bar, hands on ropes (see Fig. 213);
- 3) Swing up to kneeling position on one or both knees, hands high up the ropes and turn-over above the bar back to kneeling position (compare exercise No. 4 of group VI);

- 4) Mill-circle forwards to kneeling on one knee, with help of hands or arms;
- 5) Screw-circle on to bar from position shown in **Fig. 216**, one hand grasps rope and heel or sole of one foot presses against junction of rope and bar, then make $\frac{1}{2}$ turn;
- 6) Kneel along bar with one hand or arm on rope.

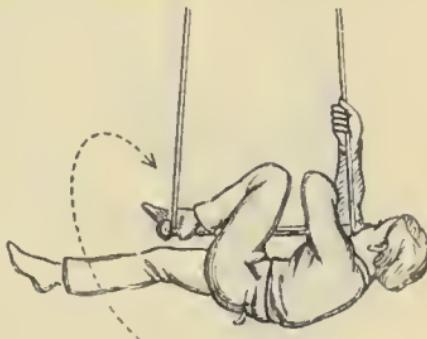


Fig. 216.

IX. Exercises in the Rest.

- 1) From the cross-stand push the body over bar, feet first, one hand on bar the other on rope (**Fig. 217**);
- 2) Change seat by swinging round one rope, forwards or backwards, one hand on bar the other on rope, legs closed (bent or straight) (**Fig. 218**);
- 3) Balance-rest on bar, legs held in front lever;
- 4) Change seat by squatting forwards or backwards, both hands on ropes or one hand on bar (**Fig. 219**);
- 5) Circle one leg on to bar;

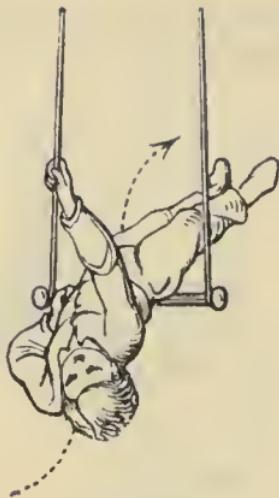


Fig. 217.



Fig. 218.

- 6) The needle (**Fig. 220**);
- 7) Swing forwards and screw one leg backwards round the rope on to bar, one hand on bar the other on rope;



Fig. 219.



Fig. 220.

- 8) Squat forwards with one leg and backwards with the other at the same time, also scissors movements;

- 9) Balance - rest sideways or crossways, also on one arm only and shoulder - balance with hands on ropes;
- 10) Drop slowly down from the hang on ropes, head downwards, touch bar first with shoulders and then sink until hanging on neck and swing up to balance on neck (**Fig. 221**) turn - over backwards and off.

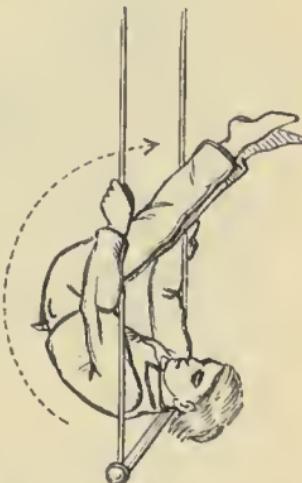


Fig. 221.

X. Exercises in Pairs.

All of the previous exercises in groups I to IX can be practised in pairs, side by side (on a long bar hanging on three ropes), or one above the other (on two ordinary sized bars hung on a single pair of ropes only).

a.

When two pupils are side by side, they execute the same exercises Nos. I to IX the one to the right, the other to the left, and when one is above the other, one practises on the ropes the other on the bar.

b.

- 1) One in side-seat or hock-hang, hands on ropes, the other in various rests, leaning-hangs, seats, or hangs from legs or feet of the first;
 - 2) One in hock-hang on one or both knees and without grasp of hands, the other hanging from hands, arms or feet of the first;
 - 3) One hangs from insteps as shown in Fig. 197 and the other from hands of the first, or embraces his body with both legs, hanging head downwards.
-

R I N G S.

Apparatus: The rings should have a diameter of nearly 8 inches and hang on ropes or leather straps 6 to 8 yards long, which can be adjusted to any less desired length.

A. EXERCISES WITHOUT A SWING.

I. Hanging-Stand on rings at height of chest.

- 1) Hanging-stand (face upwards) legs either straddled or closed (**Fig. 222**);
- 2) In hanging-stand, bend and straighten arms;
- 3) In hanging-stand with bent-arms, extend one arm forwards or sideways;

- 4) Release grasp of one ring, catch hold of the other and back again;
- 5) Hanging on one arm, bend and straighten the same (this exercise is easier with a $\frac{1}{4}$ turn);
- 6) Raise one leg or knee, straddle, jump up &c.;
- 7) Combinations of leg and arm movements;
- 8) Hanging-stand backwards (face downwards), arms raised backwards up. Also leg movements whilst in this position;
- 9) Hanging-stand backwards with arms extended forwards up (**Fig. 223**);

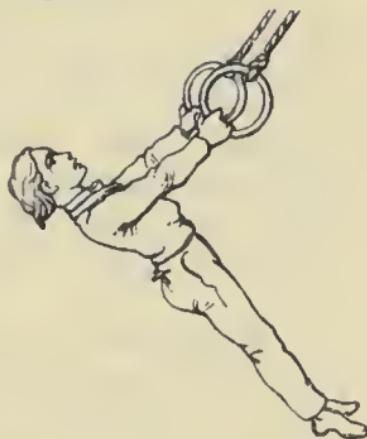


Fig. 222.

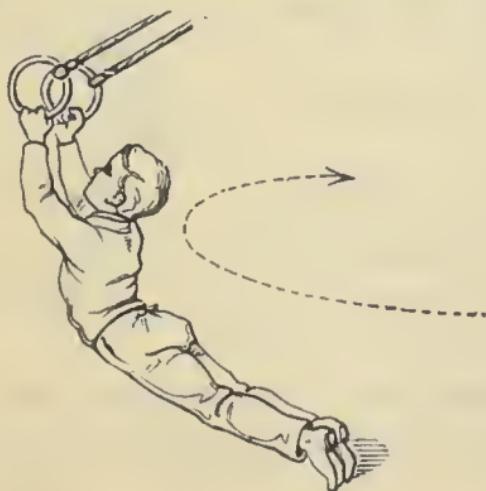


Fig. 223.

- 10) Change of hanging-stand by leaning backwards, forwards, or sideways after going to the erect standing position each time;
- 11) Extend arms sideways from hanging-stand as in Nos. 1 and 9;
- 12) Change from position in No. 9 to No. 8 by extending arms sideways;
- 13) Make complete circle with body, feet remaining fixed on the ground (Fig. 223).

II. Exercises in the Leaning-rest.

The rings placed at height of knees.

- 1) Change from the stand to the leaning-rest (**Fig. 224**)
 - a. by leaning forwards or by dropping backwards,
 - b. by stepping forwards or backwards (also jumping);
- 2) Bend-and straighten arms;
- 3) In straight- or bent-arm-rest extend one or both arms forwards or sideways;
- 4) Leg movements, such as straddle, raising knees, legs, heels &c.;
- 5) Combinations of leg and arm movements;
- 6) Change from the hanging-stand, legs squatting (also from the back-hanging-stand)



Fig. 224.

to the front-leaning-rest, by straightening body from the squatting position;

- 7) The same from ordinary hanging-stand, with help of arms only, feet remaining on spot.

III. Exercises in Hanging position.

a. On rings within reach of hands.

- 1) Twist arms in the straight-arm-hang;
- 2) Rise from straight-arm- to bent-arm-hang;
- 3) Hang with one arm bent and the other extended sideways (**Fig. 225**);

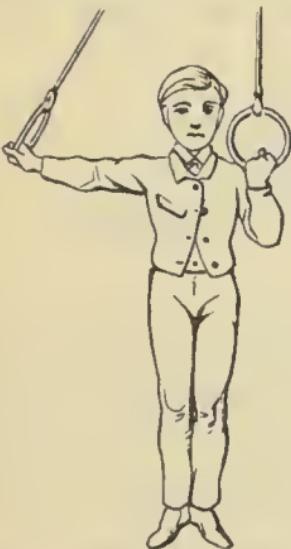


Fig. 225.



Fig. 226.

- 4) Twist fore-arm whilst in bent-arm-hang;
- 5) Momentary extension and bending of one or both arms;

- 6) Release grasp of one ring, catch hold of the other and back again;
- 7) Hang from one bent-arm;
- 8) Bent-arm-hang on one arm and elbow-hang on the other;
- 9) Jerk up and down in the elbow-hang;
- 10) Change from front- to back-elbow-hang by twisting arms forwards and backwards in the shoulder (**Fig. 226**);
- 11) Rise from elbow-hang to bent-arm-rest;
- 12) Upper-arm-hang.

b. At rings high enough to require a jump.

At first in straight-arm- and later on in bent-arm-hang.

- 1) Raise one or both knees;
- 2) Raise one or both heels;
- 3) Raise one or both legs;
- 4) Straddle legs forwards or sideways;

- 5) Leg movements as in Nos. 1 to 4 combined with arm movements, such as: pull up to bent-arm-hang and raise one leg forwards at the same time and back again, or straight-arm-hang with raised heels, pull up to bent-arm-hang with raising knees and drop down to straight-arm-hang again with raised heels;
- 6) Combination of leg movements, such as: raise knee of one leg and heel of the other, or raise both heels and then the knees, from this position extend legs

horizontally forwards, then drop them with straddle and close them before touching the ground.

c. On rings within reach of hands.

- 1) Swing both legs forwards and backwards (rings remain stationary);
- 2) The same sideways;
- 3) The same in a circle to the right (**Fig. 227**);

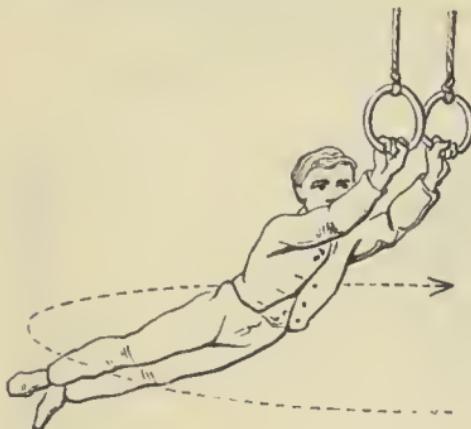


Fig. 227.

- 4) Gradual change from exercise No. 3 to the same left and back again.

IV. Exercises in the Rest.

a. The rings can be at height of shoulders, but if lower, the exercises are more easy and if higher, they are more difficult.

- 1) Jump up to bent-arm-rest (**Fig. 228**) and drop down slowly backwards into straight-arm-hang or the stand;

- 2) Jump to straight-arm-rest 4 to 6 times in succession;
-

- 3) The same with momentary straddle (come down with closed legs);
 4) The same, raising one or both knees;
 5) The same, raising one or both heels;
 6) The same with front-straddle;
 7) The same, raising one or both legs forwards;
 8) Jump up to back-rest;
 9) Back-rest on one arm only.



Fig. 228.



Fig. 229.

- b. Rings to be placed at height of shoulders.
- 1) In rest (**Fig. 229**) extend one arm sideways;
 2) In rest extend both arms sideways;

- 3) Extend one arm sideways and bend the other;
- 4) Bend and straighten both arms;
- 5) Momentary side-straddle of legs;
- 6) Momentary front-straddle;
- 7) Raise one or both knees, also one or both heels;
- 8) Raise one or both legs;
- 9) Raise legs to front-lever, straddle and close them again;
- 10) Swing legs forwards or backwards in rest- or bent-arm-rest, also jerk up during the swing from bent-arms to straight-arms;
- 11) Arch the back to the lever between arms, up to the hand-balance (one or both insteps leaning against the ropes) also with rest on one arm only;
- 12) Ordinary hand-balance with straight- or bent-arms.

V. The Up-rise.

The rings to be placed at height of head or higher.

From ordinary hang

- 1) Rise up with one arm to bent-arm-rest (**Fig. 230**);
- 2) The same, first with one arm then with the other;
- 3) Jump on to bent-arm-rest and then push up to straight-arm-rest;

- 4) Rise up to bent-arm-rest, both arms together;
- 5) The same to the rest.



Fig. 230.

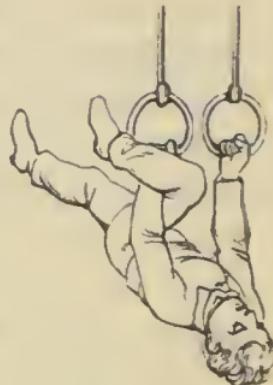


Fig. 231.

VI. Exercises in the Leaning-hang.

The rings to be placed at height of head.

- 1) Hang left leg on left arm (**Fig. 231**);
- 2) Hang left leg on right arm;
- 3) Hang both legs on either arm;
- 4) Change of leaning-hang from one arm to the other without letting legs drop;
- 5) The same, drop legs and swing them up again;
- 6) Repetition of exercises, but at instant of legs reaching the arm, the hand releases grasp, permits leg to pass and regrasps ring before alighting takes place;

- 7) Exercise as in No. 1 with pushing up to rest.

VII. Turns-over.

Rings to be at height of shoulders.

- 1) Turn-over backwards to the hang, head downwards (**Fig. 232**);
- 2) The same forwards;
- 3) Leg movements in the hang, head downwards, such as: swinging one leg, straddling, bending knees, thrusting legs &c.;
- 4) Raise and drop the body in the hang, head downwards;
- 5) Turn-over backwards from the stand, or hang to the back-hang or stand, with
 - a. bent arms,
 - b. straight arms, also with bent hips and bent knees, straight body and bent knees, bent body and straight knees, straight body and straight knees and finally with holding legs each in a different position;
- 6) Turn-over forwards from the stand or hang with back to rings (see Fig. 235);
- 7) Remain in each of the following positions of the turn-over:
 - a. the front-lever of legs,
 - b. the front-lever in the hang,
 - c. back-lever with or without raising of heels (**Fig. 233**);



Fig. 232.

- 8) Turn-over backwards or forwards, legs straddling first across one arm, then across both (care and help are required in this exercise);

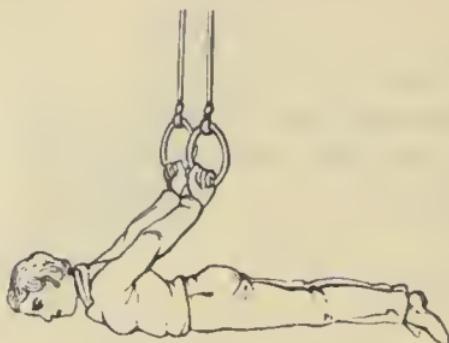


Fig. 233.

- 9) Turn-over backwards with straddle as in No. 8, grasping one ring with both hands;
 10) Turn-over backwards to the nest, hanging with one or both insteps (**Fig. 234**) on ropes or on rings, or with insteps on forearms, also on one rope and one ring only; — hands grasp either

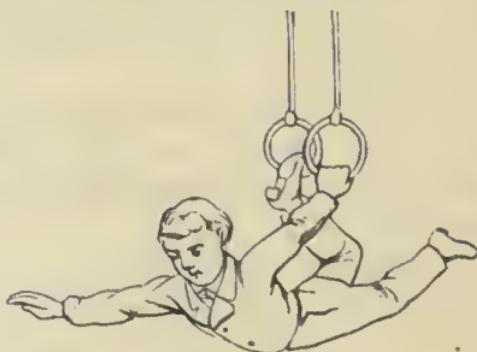


Fig. 234.

- a. each on one ring,
 - b. both on one ring,
 - c. with one hand only (**Fig. 234**);
- 11) Turn-over backwards and in doing so, make $\frac{1}{4}$ turn to the side-lever on one arm, then push up to the rest;
- 12) Turn-over forwards or backwards from the stand, or the hang, with twist of shoulders (dislocation) (**Fig. 235**);

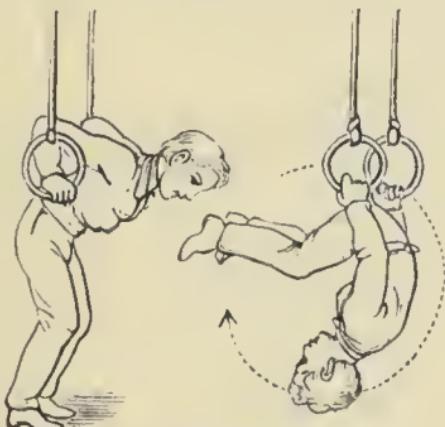


Fig. 235.

- 13) Turn-over backwards and push up to rest simultaneously (clear-circle);
- 14) The same from the rest to the rest (clear-circle backwards);
- 15) Circle up from elbow-hang to bent-arm-rest;
- 16) Continuous circle forwards from the rest;
- 17) Circle up to the hand-balance;
- 18) Drop from lever above the rings to the same underneath;
- 19) Somersault.

VIII. Exercises in Standing position in the Rings.

The rings are placed at height of knees and hands grasp ropes at height of shoulders.

- 1) Side-straddle and closing of legs;
- 2) Extend arms sideways and back again;
- 3) Exercises Nos. 1 and 2 together, or one after the other;
- 4) Front-straddle;
- 5) Cross legs (**Fig. 236**) and extend both arms sideways;
- 6) The same extending arms forwards or backwards;
- 7) Exercises as in Nos. 4 and 5, bending knee of front-leg;
- 8) Turn-over forwards or backwards standing in rings, also turn-over, sitting in rings;
- 9) Stand in rings, embracing ropes with arms, but without grasping them;
- 10) Stand in the rings, (without help of arms) pressing thighs against ropes;
- 11) Squat in one ring and hang on instep in the other (without help of hands).



Fig. 236.

B. EXERCISES WITH A SWING.

IX. Swinging with Leg movements on rings within easy reach.

a.

- 1) Swing forwards and backwards, starting with 3, 2, or 1 ordinary steps;
- 2) The same, pushing off with both feet together;

- 3) Swing without touching ground by raising and dropping legs;
- 4) Exercise No. 2 with straddle of legs at end of front-swing;
- 5) The same at end of back-swing;
- 6) The same at end of front- and back-swing;
- 7) The same, holding legs in side- and front-straddle;
- 8) Swing sideways too and fro;
- 9) Swing in a circle to the right or to the left.

b.

The corresponding preparatory exercises can be found under group VI "Lean-hang".

- 1) Swing and raise right leg on to the right arm;
- 2) The same, right leg on to left arm;
- 3) The same, both legs on to one arm;
- 4) Change leaning-hang from one arm to the other in front- and back-swing;

- 5) Swing by raising legs forwards up at end of back-swing and dropping them again at end of front-swing;
- 6) The same as in No. 1 with push up to rest;
- 7) The same as in No. 1 and release grasp of hand of arm on which the leg hangs, drop leg and regrasp the same ring or the other one.

X. Swinging with Arm movements on rings within easy reach.

- 1) Swing, hanging from both elbows,
 - a. in front-hang,
 - b. in back-hang,
 - c. change from a. to b. and vice versa in the front- and back-swing;
- 2) Swing, hanging from upper-arms;
- 3) Swing, hanging from one hand and one elbow;
- 4) Swing in elbow-hang and rise up to bent-arm-rest;
- 5) Swing and pull up to bent-arm-hang at end of back-swing;
- 6) The same, pulling up at end of front-swing;
- 7) Swing, pull up and drop again at end of back-swing;
- 8) The same at end of front-swing;
- 9) The same at end of front- and back-swing;
- 10) Extend arms sideways in front- and back-swing;
- 11) Continued swing with bent-arms;

- 12) Swing, hanging from one arm, the other being extended sideways;
- 13) Swing with up-rise or up-start at end of back-swing;
- 14) The same at end of front-swing.

XI. Turning of body in the Swing on rings within easy reach.

- 1) Swing with $\frac{1}{2}$ right or left turn in the front-swing. The ropes are crossed,
 - a. before commencing the swing,
 - b. at end of back-swing;
- 2) The same in the back-swing;
- 3) Swing with $\frac{1}{2}$ right or left turn at end of front-swing;
- 4) The same at end of back-swing;
- 5) Continued swing with $\frac{1}{2}$ right and left turn at end of front- and back-swing.

XII. Jumping in the Swing.

The rings are placed at height of shoulders.

- 1) Jump forwards with a run and alight with or without a turn;
- 2) The same from the swing, also with a turn;
- 3) Exercises Nos. 1 and 2 over a rope placed in front (**Fig. 237**).

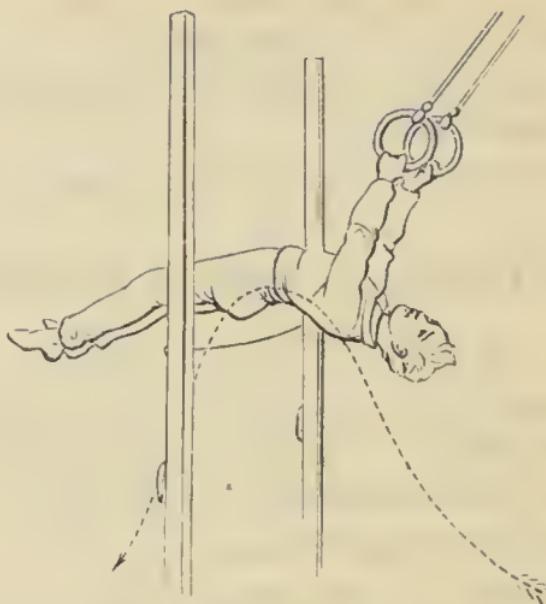


Fig. 237.

XIII. Turns-over in the Swing.

The rings to be placed at height of head.

Swing with turn-over backwards.

- 1) To the hang, head downwards.
 - a. with bent legs,
 - b. with legs leaning against ropes,
 - c. with straight legs between ropes,
 - d. with bending and straightening of legs in front- and back-swing,
 - e. the same with pulling up and down;
- 2) To the nest, hanging on both hands and on one or both feet;
- 3) To the back-hang in one swing and turn-over forwards in the next;

- 4) To the lever in the back-hang;
- 5) Circle up to the rest at end of front-swing;
- 6) The same at end of a moderate back-swing;
- 7) Turn-over with a twist in the shoulders,
 - a. forwards at end of front-swing,
 - b. backwards at end of front-swing,
 - c. forwards at end of back-swing,
 - d. backwards at end of back-swing,
 - e. forwards at end of front- and backwards at end of back-swing,
 - f. backwards at end of front-swing and forwards at end of back-swing;
- 8) Turn-over backwards to the stand,
 - a. at end of back-swing,
 - b. at end of front-swing, also with straddle, or from the nest, feet on the ropes.

XIV. Swinging in the Rest.

The rings to be placed at height of chest.

- 1) Run forwards and jump to the rest;
- 2) The same, running backwards;
- 3) Increase the swing by swinging legs forwards and backwards;
- 4) Swing in the rest with various leg movements;
- 5) Change rest and bent-arm-rest as follows:
 - a. front-swing in rest and back-swing in bent-arm-rest,

- b. back-swing in rest and front-swing in bent-arm-rest,
 - c. front- and back-swing in rest and momentary bent-arm-rest at end of front-swing,
 - d. the same with momentary bent-arm-rest at end of back-swing,
 - e. front- and back-swing in bent-arm-rest and momentary rest at end of front-swing,
 - f. the same with momentary rest at end of back-swing,
 - g. front- and back-swing in rest and momentary bent-arm-rest at end of back- and front-swing,
 - h. front- and back-swing in bent-arm-rest and momentary rest at end of front- and back-swing;
- 6) Change from bent-arm-hang to bent-arm-rest or rest.

In exercises a. to h., No. 5, a hang may be substituted for either the rest or the bent-arm-rest.

Combinations of several pairs of rings, behind one another, or beside each other.

Combinations of rings with trapeze.

THE HORIZONTAL LADDER.

Apparatus: A ladder, about 18 feet long and about 15 inches wide, outside measurement.

I. Exercises in Side-hang.

- 1) Jump on to side of ladder to outside side-hang with ordinary grasp (Fig. 238), or reverse grasp (Fig. 239);

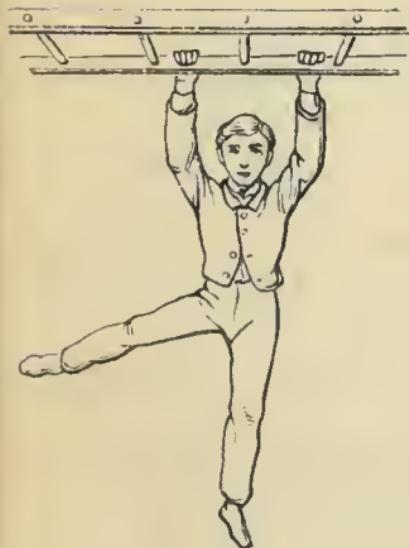


Fig. 238.

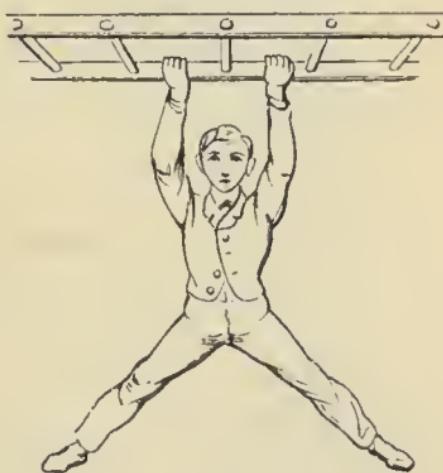


Fig. 239.

- 2) Jump up to inside side-hang with ordinary or reverse grasp;

- 3) Jump up to side-hang on two rundles, with ordinary, or reverse grasp (**Fig. 240**);
- 4) Exercises Nos. 1 to 3, hanging with crossed arms;
- 5) Exercises Nos. 1 to 3, hands wide apart;
- 6) Exercises Nos. 1 to 3, with raising of heels (**Fig. 240**), with raising of knees (**Fig. 241**), with straddle (**Fig. 239**), with sharp swing-up of one leg (**Fig. 238**), with raising of legs (**Fig. 242**), &c. whilst jumping on to the ladder;
- 7) Exercises Nos. 1 to 6 to the bent-arm-hang;
- 8) All the leg movements in No. 6 combined with the various hangs in Nos. 1 to 5 with turn of body;
- 9) Hangs as in Nos. 1 to 3, pull up and drop again;
- 10) The same with leg movements as in No. 6;
- 11) Change from outside to inside side-hang, also to side-hang on the rundles;
- 12) Swing in the hangs as in Nos. 1 to 3, forwards, backwards, sideways, in a circle and also in the figure eight;
- 13) Change of hang as in No. 11 during the swings of No. 12.



Fig. 240.

A still greater variety can be made by one hand grasping in ordinary, or reverse grasp on the side and the other on a rundle.

II. Exercises in Cross-hang.

- 1) Jump up to cross-hang, grasping sides from the outside;
- 2) The same, grasping from the inside (**Fig. 241**);
- 3) The same to cross-hang on one rundle, with ordinary, or reverse grasp (**Fig. 242**);



Fig. 241.

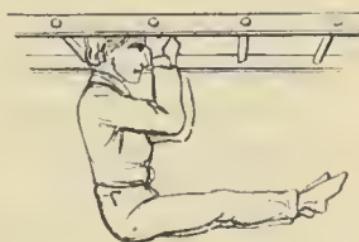


Fig. 242.

- 4) Various kinds of hangs can be arrived at by having one kind of grasp with one hand on side or rundle and a different grasp with the other hand, also by grasping the side with one hand and a rundle with the other.

Arm and leg movements in connection with the previous kinds of hangs can be taken from No. 6 of the first group.

III. Travelling Exercises.

a.

Outside side-hang on one side with straight or bent arms and with ordinary, reverse, or combined grasp.

- 1) Travel sideways one hand after the other;
- 2) The same, each hand in its turn travelling several times until the hands are wide apart;
- 3) Travel as in No. 1, one hand passing either under or over the other;
- 4) Travel sideways, swinging one leg sideways or forwards, or raising one knee or heel at each step;
- 5) Travel sideways, both hands at a time (hopping);
- 6) The same, raising knees, heels, legs, also with straddle or with holding legs in any of these positions;
- 7) Swing forwards, backwards, or sideways;
- 8) Swing sideways and travel sideways;
- 9) Swing sideways and hop sideways;
- 10) Swing forwards and backwards and travel sideways, both hands together or one after the other;
- 11) Exercises Nos. 8 to 10 with leg movements.

b.

Inside side-hang on one side with straight or bent arms and with ordinary, reverse, or combined grasp.

- 1) Travel sideways, passing one or more rundles;
- 2) Hop sideways;
- 3) The same, hands wide apart;
- 4) More exercises of this kind can be done by adding the leg movements of the previous group.

c.

Side-hang on rundles with straight or bent arms and with ordinary, reverse, or combined grasp.

- 1) Travel sideways, passing one or more rundles;
- 2) Hop sideways;
- 3) The same as in No. 1 with a swing;
- 4) Also with leg movements as in a.

d.

Outside or inside side-hang with one hand on side and the other on rungle in ordinary or reverse grasp, arms straight or bent.

- 1) Travel sideways;
- 2) Hop sideways;
- 3) Travel and hop sideways whilst swinging sideways;
- 4) The same, whilst swinging forwards and backwards;
- 5) Travel and hop with leg movements as in a.;
- 6) Exercises as in Nos. 3 and 4 with leg movements.

e.

Cross-hang with straight or bent arms, grasping sides either from inside or outside.

- 1) Travel forwards or backwards;
- 2) Hop forwards or backwards;
- 3) Travel forwards or backwards, changing grasp from outside to inside and vice versa;
- 4) Hop, changing grasp of one or both hands;
- 5) Travel forwards and backwards with leg movements;
- 6) Hop forwards and backwards, holding legs in side- or front-straddle, with raised knees &c., also with change after each hop.

f.

In cross-hang, hands outside.

- 1) Swing forwards and backwards and jump off at end of back-swing;
- 2) Swing and hop forwards with each front-swing;
- 3) Swing and hop backwards with each back-swing;
- 4) Swing and hop forwards with each back-swing;
- 5) Swing and hop backwards with each front-swing;
- 6) Swing and hop forwards with each back- and front-swing;
- 7) Swing and hop backwards with each front- and back-swing;
- 8) Swing sideways and travel forwards or backwards.

g.

Cross-hang with straight or bent arms and ordinary or reverse grasp on rundles.

- 1) Travel forwards or backwards from one rundle to the next one;
- 2) The same, missing one or more rundles;
- 3) Hop forwards or backwards from one rundle to the next;
- 4) The same, forwards missing one rundle;
- 5) Travel and hop with leg movements;
- 6) Exercises Nos. 1 to 5 with a swing;
- 7) Travel and hop with turn,
 - a. $\frac{1}{2}$ right and left turn alternately and with one or more swings, also on one arm,
 - b. with repeated turning towards one side.

h.

Cross-hang with one hand on side and the other on rundle, in ordinary, reverse or combined grasp. All exercises in group g. can be practised with this hang.

IV. Lean-ing-hang.

The exercises can be done from the side- or the cross-hang, grasping sides or rundles, feet pushing either against a rundle or side.

- 1) Whilst in front-lean-ing-hang, both feet pushing against a rundle (**Fig. 243**); raise and drop body, bending knees at the same time;

- 2) The same with help of one foot only;
- 3) Exercises Nos. 1 and 2 in back-leaning-hang without bending knees;

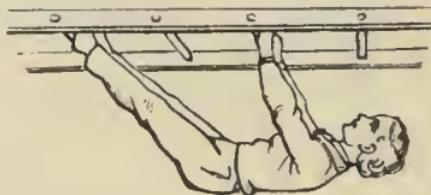


Fig. 243.

- 4) Travel in front- and back-leaning-hang;
- 5) Turn-over forwards or backwards from leaning-hang.

Various exercises peculiar to the horizontal bar, such as circles on and off can be practised both in the side- as well as in the cross-hang at end of ladder, the former being the most difficult. Parallel bar-exercises can also be practised, if there be two parallel ladders at disposal. Also a variety is produced by placing the ladder more or less on edge, so that the rungles stand obliquely.

THE SLANTING LADDER.

Apparatus: The ladder should be placed at an angle of from 30° to 60° . If it be steeper, the hanging exercises become very much more difficult, but on the other hand the ordinary ascending exercises are easier and are even practised on a perpendicular ladder.

In order to husband the strength of the pupil, the leader should alternate the severe exercises on the under-side of the ladder with the more easy ones on the upper-side.

A. EXERCISES ON UPPER-SIDE OF LADDER.

I. Ascending and descending.

One or both hands grasping sides or runcles or both (Fig. 244).

- 1) Ascend and descend in the ordinary way,
 - a. forwards,
 - b. backwards;
- 2) The same passing one or more runcles;
- 3) The same quickly;
- 4) Ascend with the same leg always in front or with change of step and also with bending in knees at each step;

- 5) Ascend forwards or backwards without help of hands;
- 6) Stand on two rundles and hop with change of legs;
- 7) Ascend with hopping,
 - a. from rungle to rungle in ordinary erect position,
 - b. passing one or more rundles and coming to squatting position;
- 8) The same, standing on one leg only;
- 9) Exercises in pairs, for instance, ascending, one sitting on the shoulders of the other, all four hands grasping sides or rundles.



Fig. 244.

II. Ascending and descending in the Leaning-hang.

Hang with hands on rundles, the edges of the feet leaning on the sides (**Fig. 245**).

- 1) Travel up and down, one hand after the other;
- 2) The same, one hand over the other;
- 3) Hop, hands grasping one or two rundles.

III. Ascending and descending in the Leaning-rest.

Both hands on rundles, or one hand on rungle and the other on side, inside edges of

the feet resting on the sides of the ladder (Fig. 246).



Fig. 245.

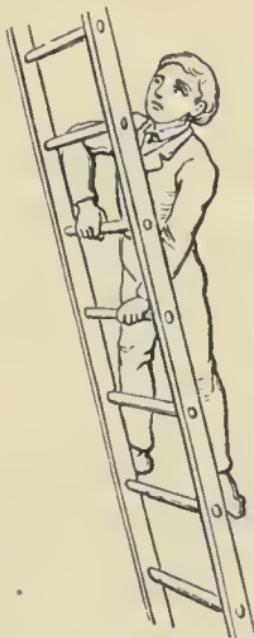


Fig. 246.

- 1) Lift one hand after the other on spot, grasping the next rungle and back again;

- 2) Ascend with one hand after the other;
- 3) The same, passing one or more rundles;
- 4) Hop on or from spot;
- 5) Ascend by pulling and pushing from the leaning-hang to the leaning-rest and descend with reverse movement;
- 6) Ascend or descend as in Nos. 1 and 2 but in back-leaning-rest;
- 7) Ascend or descend in leaning-rest, head downwards.

B. EXERCISES ON UNDER-SIDE OF LADDER.

IV. Climbing

with help of hands and feet, hands grasping rungles, or sides, or both.

- 1) Ascend and descend;
- 2) The same, missing one or more rungles;
- 3) The same, both hands together;

- 4) The same with help of one hand only;
- 5) The same quickly;
- 6) The same hopping, also with missing one or more rungles;
- 7) The same with help of one leg only;
- 8) Ascend in the back-hanging-stand.

V. Exercises in the Hanging position.

Hands grasp rungles, or sides, or both.

- 1) Jump up to the hang on one or both hands in various grasps;
- 2) Jump up to the bent-arm-hang;

- 3) The same as in Nos. 1 and 2 with leg movements;
- 4) Pull up to bent-arm-hang and drop again, in all the various grasps;
- 5) The same with leg movements, turn of body &c.

VI. Travelling and hopping in the Hanging position.

Hands grasp rundes, or sides, or both.

- 1) Lift one hand after the other, or both together on spot and change from one kind of grasp to another;
- 2) Ascend with one hand and descend with the other, or with one hand stationary and the other moving up or down;

- 3) Ascend with one hand after the other, (without passing each other);
- 4) The same, one hand passing the other;
- 5) The same, hopping with both hands together to the next rundle or passing one or more rundes;
- 6) The same, one hand after the other or both together, with leg movements;
- 7) The same on one side only;
- 8) The same with change of grasp at each movement;
- 9) Exercises Nos. 1 to 8 with a swing sideways.

C. EXERCISES AT SIDE OF LADDER.

VII. Ascending and descending with help of Hands and Feet.

One hand either on side or rundle from the upper-side whilst the other grasps from the under-side.

- 1) Ascend and descend at side of ladder (Fig. 247);
- 2) The same, passing one or more rundles;
- 3) The same with help of one foot only;
- 4) The same with help of one hand only;
- 5) The same quickly.



Fig. 247.

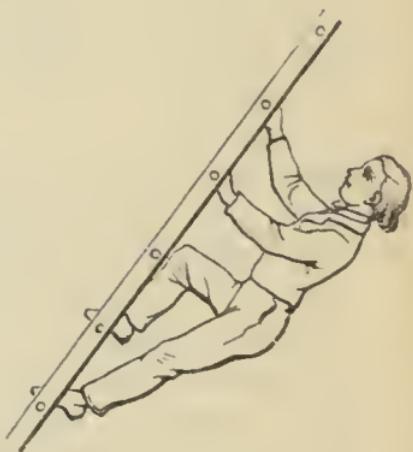


Fig. 248.

VIII. Ascending and descending without help of Feet.

Hands grasping as before.

- 1) Ascend, one hand after the other, also one hand passing the other;
- 2) The same, both hands together (hopping);
- 3) The same as in Nos. 1 and 2, legs straddling. heels raised &c., also with change of various leg movements at each step.

IX. Various Exercises.

- 1) Hanging-stand on the under-side of the ladder with change of grasp (Fig. 248);
- 2) With hanging-stand as in No. 1 and with feet close to the hands, bend and straighten knees;
- 3) Hanging-stand on left leg and left arm, swing right leg sideways to the right and touch the extended right arm;
- 4) Hanging-stand, hands on the rundles, one or both feet on the 3rd or 4th lower rungle, bend and straighten arms;
- 5) Hanging-stand, raise body towards the ladder by straightening body and pulling up with the arms and drop again;
- 6) Wind through between the rundles with either head or legs first;
- 7) Turn-over backwards from back-lying position on upper-side of ladder, hanging with toes on one rungle, to straddle-seat on the ladder or to the stand on ground in front or at side of ladder. The hands should be extended above head and grasp rundles;
- 8) Lever on one elbow and front-vault-swing over the ladder.

D. THE DOUBLE SLANTING LADDER.

The two ladders should be inclined at the same angle and be parallel to one another.

- 1) Jump to rest between ladders, grasping a rungle of each, facing the upper ends,

- swing forwards and backwards, make half turn backwards to straddle-seat on one ladder (screw-mount) and slide down;
- 2) Jump to rest, facing the lower ends, swing forwards and at end of the same make half turn to straddle-seat on one ladder and slide down;
 - 3) Jump to rest and travel or hop up and down from one rungle to the other with a moderate swing;
 - 4) Rest on the whole length of the arms along sides of ladder, facing the upper ends, hands having ordinary or reverse grasp on rungles, swing forwards and backwards and then up to the balance on the upper-arms;
 - 5) Pull up to rest, hanging on the whole length of the arms, hands grasping rungles, also to the balance on upper-arms;
 - 6) Roll backwards from the upper-arm-hang;
 - 7) Up-start to bent-arm-rest, or rest, or balance;
 - 8) Up-rise;
 - 9) Lever from the front-hang;
 - 10) Stand between the ladders, facing the lower ends, extend arms above head and grasp rungles with reverse grasp and swing up with ordinary circle to the hang on upper-arms, to the bent-arm-rest, or to the rest;
 - 11) Turn-over to the back-lever from position in No. 10;
 - 12) Exercises in pairs, such as ascending and descending, the inside hands hand-in-hand or upon shoulders.
-

CLIMBING.

The climbing apparatus should be composed of at least 8 movable poles and 4 climbing ropes.

The descending is not specially designated because it should be in the same style as the ascending and the leader should not permit any sliding down.

In order to produce more variety in the somewhat monotonous climbing exercises it is advisable to introduce climbing up one pole and down another, or on two others, also with one style up and another down. The leader should as far as possible alternate easy exercises with the more fatiguing ones.

A. EXERCISES ON UPRIGHT POLES.

I. Climbing

on one pole with help of hands and legs.

- 1) Hang with bent or straight arms and legs hanging straight down the near side of the pole, the inside edge of the feet pressing against it;
- 2) Hang as in No. 1 with leg movements, such as raising heels, crossing legs, straddling &c.;

- 3) Hang, pressing shin of one leg against the pole, the other leg extended either sideways, backwards or forwards (**Fig. 249**);



Fig. 249.



Fig. 250.

- 4) Hang, pressing both legs against the pole, either the left in front as in **Fig. 250** or the right leg in front (ordinary climbing position);
 5) In climbing position raise and drop knees;
 6) In climbing position release grasp of
 a. one hand,
 b. both hands, also with one or more claps of hands,
 c. also with change of legs;

- 7) Climb up and down with
 - a. one hand after the other,
 - b. one hand passing the other,
 - c. both hands together,
 - d. grasp of one hand only;
- 8) Climb up and down with
 - a. change of legs,
 - b. only one leg pressed against the pole and the other extended sideways, forwards or backwards.

II. Climbing on one Pole without help of Legs. (Fig. 251.)

- 1) Hang with straight arms, legs closed and raised slightly backwards, the head to be erect or even slightly bent backwards;
- 2) The same with bent arms;
- 3) The same with leg movements, such as straddle and closing, extending both legs obliquely forwards, raising and dropping heels &c.;
- 4) More exercises can be done by changing from bent-arm-hang with raised heels to straight-arm-hang and straddle &c.;
- 5) Climb up and down with one hand after the other, without passing each other;
- 6) The same, one hand passing the other;



Fig. 251.

- 7) The same, both hands together;
- 8) Exercises Nos. 5, 6 and 7, with legs held in various positions, such as legs extended forwards, knees or heels raised, straddle, also with change of these positions after a certain number of steps.

III. Climbing on two Poles with help of Hands and Legs.

- 1) Hang with straight arms, legs extended backwards and the head bent slightly backwards;
- 2) The same with bent arms;
- 3) Change from exercise No. 1 to No. 2;
- 4) The same with leg movements, turning of body &c.;
- 5) Hang with legs pressed against the poles from the inside (the feet outside, **Fig. 252**);
- 6) Hang with legs pressed against the poles from the outside (the feet inside, **Fig. 253**);
- 7) Ordinary climbing position on one pole. both hands grasping both poles (**Fig. 254**);
- 8) Changes of various climbing positions;
- 9) Raise and drop knees in the various climbing positions;
- 10) The same, and after having raised knees and pressed them against the poles, pull up with the arms and drop down again, knees remaining pressed against the poles;
- 11) Release the grasp of one or both hands in the various climbing positions and clap hands once or more, also change of one

hand to the other pole, either under or over the other hand;



Fig. 252.



Fig. 253.



Fig. 254.

- 12) Climb up and down in positions as in Nos. 5, 6 and 7,
- with one hand after the other and one leg after the other,
 - with both hands together, but one leg after the other,
 - with one hand after the other, but both legs together,
 - with both hands and both legs together.

IV. Climbing on two Poles without help of Legs. (Fig. 255.)

a.

- 1) With one arm after the other or both together, with or without the following leg movements,
 - a. side- or front-straddle,
 - b. one or both knees raised,
 - c. one or both heels raised,
 - d. legs extended forwards,
 - e. side- or front-straddle and closing of legs after each step,
 - f. raising and dropping of heels,
 - g. raising and dropping of knees,
 - h. raising and dropping of legs;
- 2) Climb up and down, each hand grasping several times.



Fig. 255.

b.

Swing in the hang, and in the front- and back-swing:

- 1) Release grasp of one hand after the other, either with or without ascending;
- 2) The same with both hands together;
- 3) Exercises Nos. 1 and 2 with leg movements as in a;
- 4) Change from bent-arm-hang to straight arm-hang;
- 5) Hang with bent arms for a length of time.

V. Between two poles hang on one arm and Rest on the other.

- 1) Hang with straight arm on one pole and rest with the other on the other pole (**Fig. 256**);
- 2) Hang on one arm and bent-arm-rest on the other;
- 3) Hang with straight or bent arm on one pole and rest on the other with straight or bent arm;
- 4) Leg movements in addition to the previous positions;
- 5) Pull up and drop in position as in No. 3, also bend one arm and straighten the other (repeatedly);
- 6) Change from the hang to the rest and vice versa, more particularly in descending the poles. The hanging arm grasps very low down to the rest and the resting arm drops slowly down into the hang;
- 7) Rest on both arms, poles either in front or behind;
- 8) Bent-arm-rest;
- 9) Swing in the bent-arm-rest;
- 10) Leg movements in the rest and bent-arm-rest;
- 11) Ascend and descend one hand after the other or both together.



Fig. 256.

VI. Turns-over.

- 1) Turn-over backwards (Fig. 257) or forwards (compare Fig. 235) from the stand or from the hang to the hang, head downwards
 - a. with leg movements,
 - b. with turn of body,
 - c. with arm movements;
- 2) Turn-over forwards or backwards from the stand or the hang to the stand or the hang;
- 3) Turn-over to the nest on one or both insteps.



Fig. 257.

VII. Various Exercises.

a. On one pole.

- 1) Climbing position of legs and climb np with pole at side of body;
- 2) Climb np, back to pole;
- 3) Climbing position head downwards and slide down without help of hands;
- 4) Climb down head downwards.
 - a. hanging on arms,
 - b. resting on arms;
- 5) Climb up, soles of feet pressed against the pole,
 - a. with one foot after the other,
 - b. with one foot passing the other;

- 6) Side-lever on one elbow, hanging on the other arm, also leg movements in that position;
- 7) Clear side-lever;
- 8) Front- or back-lever, shoulder pressed against the pole and hands grasping above the head;
- 9) Lever in the riding-seat, one hand in front, the other behind the body;
- 10) Climb and turn when
 - a. going up, or
 - b. coming down; in this case with pole behind one arm and the other arm free.

b. On two or more poles.

- 1) Hanging-stand and front- or back-leaning-rest with arm and leg movements; change from hanging-stand to leaning-rest &c.;
- 2) Ascend on two poles;
- 3) Climb from one pole to the other
 - a. sideways, forwards or backwards along the top of the poles,
 - b. obliquely up and down.

The climbing from one pole to the other is done in the following manner:

- a. one hand grasps the next pole, the legs follow, and then the other hand follows,
- b. the legs go into position on to the next pole and then the hands follow,
- c. both hands grasp the next pole and then the legs follow.

B. EXERCISES ON SLANTING POLES.

The poles are placed at an angle of 45° at the most.

Most of the vertical pole exercises can be practised on the slanting poles and as a rule are easier of execution. In addition to them the following can be practised:

- 1) Ascend and descend on one pole hand after hand or both together in the side-hang with ordinary or reverse grasp;
- 2) The same with twisted grasp.
 - a. backwards up and forwards down,
 - b. forwards up and backwards down;
- 3) Travel from one pole to another either forwards, backwards or sideways horizontally;
- 4) The same obliquely up and down;
- 5) From the stand on the cross-beam, on which the poles rest,
 - a. go off forwards with under-swing (facing the poles),
 - b. rest on poles (back to poles) and drop down to the hang between the poles (feet remaining on the beam) and pull up again to the rest;
- 6) Leaning-hang on one or two poles (knees resting on the poles) and travel up and down;
- 7) Travel up and down in the front- or back-leaning-rest;
- 8) Rest with travel or hop in the same, also with a swing;

- 9) Shoulder balance on pole, hands on cross-beam, also with leg movements;
- 10) Balance on upper-arm;
- 11) Riding-seat on one pole and slide forwards or backwards down without help of arms.

C. ROPE CLIMBING.

a. Exercises on one Rope.

The groups "I. Climbing on one pole" and "II. Climbing on one pole without use of legs", page 249 and 251, present the leader with plenty of material for exercises on the climbing rope. The pliancy of the rope admits of its being drawn up by the climber after he has climbed up a certain distance and of his winding it in various ways round his body or legs, for instance one hand reaches down and pulls up the rope, one or both legs sitting or kneeling or standing in the loop thus formed (Fig. 258). Also a great number of exercises can be arrived at by climbing up with back to rope, grasping above head with twisted grasp &c.



Fig. 258.

b. Exercises on two Ropes.

The leader should practise at first the ordinary climbing position of legs on one rope

with hands on two ropes and then climb in that position. A large selection of other exercises can be formed from groups III, IV, V. and VI on two vertical poles.

There are also some of the stirrup exercises which may be safely introduced here.

THE GIANT-STRIDE.

Apparatus: The giant-stride should carry four ladders, its height being about 16 feet and there should be plenty of room round it.

The exercises that are not done in complete circle are very similar to those upon the stirrups and as regards those that are done in complete circle, the leader must not omit to practise them to the left as well as to the right. In running forwards, backwards or sideways the grasp can be with one or both hands and various changes of grasp can be made. The ladder can be held in front (Fig. 259) or behind the body (Fig. 260) or in elbow-joint (Fig. 261).

I. Walking.

a. *Forwards or backwards on one or two ladders.*

- 1) Ordinary walking;
- 2) Walking, the same foot always in front (gallop-step);



Fig. 259.



Fig. 260.



Fig. 261.

- 3) Walking with change of step;
- 4) Walk, raising heels;
- 5) Walk, raising knees;
- 6) Walk, swinging one leg;
- 7) Walk, crossing legs;
- 8) Walk, lunging forwards at each step.

b. Sidewards on one or two ladders.

- 1) Walk sideways with the same foot always first;
- 2) Walk sideways, one leg crossing in front or behind the other leg, also interchanging;
- 3) Walk sideways with lunging at each step.

Changes of various kinds of walks forwards as well as sideways at word of command or after a certain number of steps, also changes from walking forwards to walking sideways and vice versa.

II. Running.

a. Forwards or backwards on one or two ladders.

- 1) Run in the ordinary way (Fig. 260 and 261);
- 2) With jumping steps, only a certain number of steps to each circle;
- 3) Raising heels;
- 4) Raising knees;
- 5) Swinging legs forwards or in a circle;
- 6) Crossing legs;
- 7) Gallop-step;
- 8) Changing-step;

- 9) Touching ground with one foot only, the other leg swinging up without touching.

b. Sidewards on one or two ladders.

- 1) Run with gallop-step;
- 2) Crossing leg in front or behind;
- 3) Swinging leg sideways to either side.

III. Jumping with a Run and holding by one Ladder.

- 1) Jumping-step, gradually lengthening the step, take 8, 6, 4 and 1 step for the whole circle;
- 2) The same, jumping with both feet together;
- 3) Exercises Nos. 1 and 2 over wands held horizontally;
- 4) High-jump either in squatting position or with under-swing (**Fig. 262**) over a rope placed across the line of the circle;
- 5) Jump over other instruments, such as buck, horse &c.

IV. Giant-Swing on one or two Ladders.

- 1) Run forwards with jumping-step and then continue circle without touching ground (giant-swing forwards);
- 2) Giant-swing forwards. holding legs in front-straddle or front-leaver (**Fig. 263**);

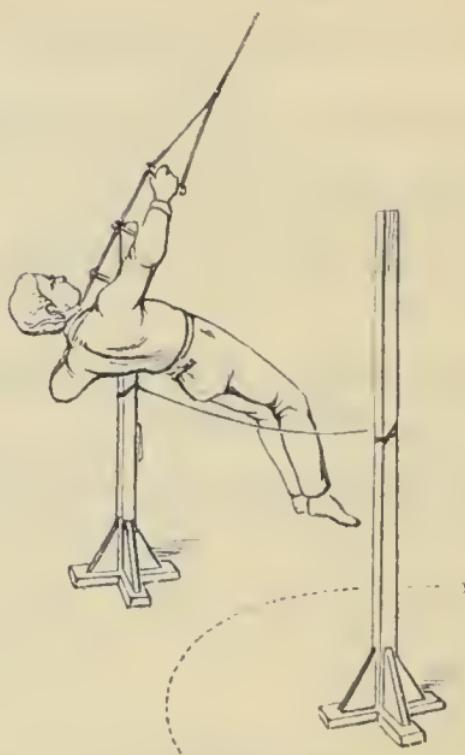


Fig. 262.

- 3) Giant-swing forwards, swinging legs sideways in a circle to the outside (**Fig. 264**);
- 4) Giant-circle sideways from a forward or sideward run;
- 5) The same, holding legs in side-straddle;
- 6) Giant-swing backwards;
- 7) Giant-swing with continued turning;
- 8) Giant-swing with circle of legs;
- 9) Giant-swing, hanging head downwards.



Fig. 263.



Fig. 264.

V. Exercises on one Ladder, turning in the Run.

The half or full turn is made with a jump of both feet.

- 1) Run forwards in a circle, the right arm inside, and make $\frac{1}{2}$ right or left turn and then run backwards, turn again and run forwards;
- 2) The same with a complete turn;
- 3) Run backwards in a circle, making a complete turn;
- 4) Gallop-step sideways to the left, facing the ladder and centre, make $\frac{1}{2}$ left turn and turn back again;
- 5) The same with a complete turn.

VI. Exercises in the Leaning-hang.

Giant-swing, hanging on one hand and one knee, the free leg and the free arm swinging in a circle (Fig. 265).

VII. Exercises in Rest and Hanging position on two Ladders.

The rest or the hang may be

- a. bent-arm-rest of the inside arm and rest of the outside one,
- b. elbow-hang of the inside arm and rest or extension sideways of the outside one (Fig. 266),
- c. hang of one and rest of the other arm,
- d. elbow-hang of both arms.



Fig. 265.

Run forwards, backwards or sideways in any of the above positions

- 1) With ordinary step;
- 2) Jumping-step;
- 3) Jumping up with both feet together;
- 4) Swinging one leg, raising knees, crossing legs &c.;
- 5) Jumping to the rest and giant-swing in the rest, also continuously;
- 6) Running sideways in gallop-step or crossing legs;

- 7) The same with various leg movements;
- 8) Running sideways and jumping up to the rest and giant-swing in the same.



Fig. 266.

VIII. Exercises in Pairs on one Ladder.

- 1) Run forwards, facing one another and with grasp of one ladder, as in Fig. 267 the inside one to suit his steps to the outside one;
- 2) The same, the inside one quitting the ground after a few steps and the outside one continuing the running round;
- 3) The same, the inside one only grasping the ladder, the outside one hanging with his arm from the arm of the inside one;



Fig. 267.

- 4) The same as in No. 3, the inside one running backwards, the outside one forwards;
- 5) The same as in No. 4, the inside one running forwards, the other backwards;
- 6) The same as in Nos. 3, 4 and 5, both changing their position in the run;
- 7) The same as in No. 1 running backwards.

IX. Running in a Circle.

One man only on one or two ladders, the other hanging (**Fig. 268**), sitting, kneeling, resting or standing on the ladder.

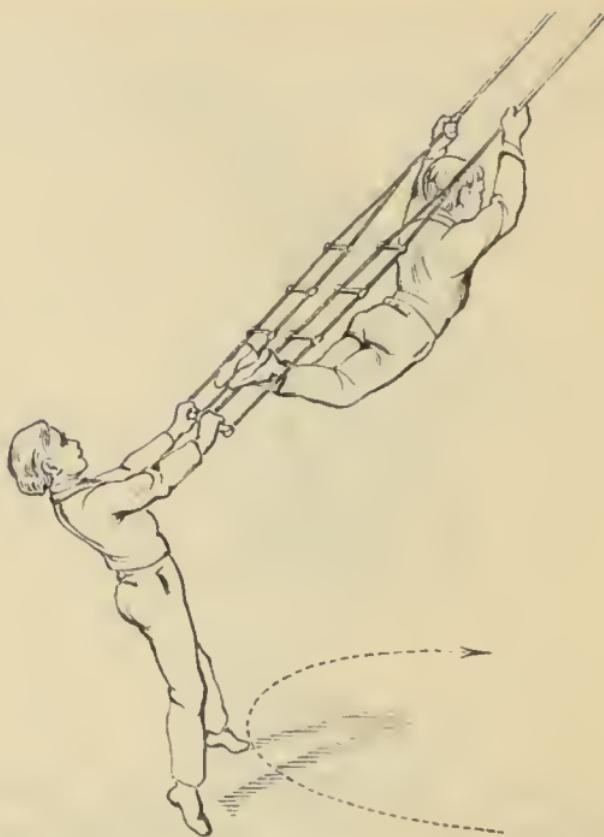


Fig. 268.

X. Exercises on a Swinging ladder fastened horizontally from the ends of the rope-ladders of a giant-stride.

- 1) Hang and walk, run or swing round as in I, II, IV;
- 2) The same, resting on the ends of the ladder, or on the last rung, or on the ends of the rope-ladder, which hangs below the wooden one;

- 3) The same in the leaning-hang, hands and feet on the rungles of the wooden-ladder and on those of the rope-ladder;
 - 4) The same, sitting on the rungles or the sides of the wooden-ladder;
 - 5) The same, standing on the wooden-ladder;
 - 6) Hang, rest, sit or stand on the wooden-ladder, putting the same into swinging motion by means of jerking body and limbs the same as if on the rings.
-

THROWING.

A. THROWING THE LANCE.

Apparatus: An ash stick 5 ft. 6 in. long, 1 in. thick, fitted at the upper end with a ferrule or a short tip, slightly thinned at the handle end; this is the blunt lance for throwing at a post or a suspended mark.

A javelin 4 ft. 10 in. long, 1 in. thick, made of light wood or cane with a heavy point of iron and steel extending 15 in.; this is the javelin (pilum) for throwing at a perpendicular, inclined, or horizontal target.

I. Preparation.

All the exercises to right and left are carried out at the same moment by all the boys of the class, at the command of the teacher.

Position of the class with an interval of 2 paces between each. Command: half to the right — turn!

- 1) Position for throwing: legs apart; right foot, on the side of the throwing arm behind and turned out; left foot, on the side of the arm at rest, to the front and slightly outwards; left, or resting arm, pointing horizontally forwards; the right, or throwing arm, sharply bent, holds the weapon with the whole hand (not merely like a pencil between the thumb and fore fingers), close to the face, balanced horizontally on a level with the right eye. — Balance the lance exactly on the fork between the thumb and first finger of the left hand, then seize it with the right hand behind the centre of gravity;
- 2) Step backwards and forwards not altering the position of the arms;
- 3) Jerk: i. e. By a jerk of the hand and forearm, with a simultaneous turn of the trunk to the right, bring the lance suddenly backwards, keeping it almost horizontal, with the point slightly raised, so that it stretches right across the chest (**Fig. 269**);
- 4) Fling: i. e. Turning the trunk back to the left, bring the lance again with a fling into the original position in the fork between the thumb and finger, and thrust it horizontally forwards without quite letting go: stop as soon as the hand passes the ear;
- 5) Repeat the jerk and fling several times with as much rapidity and force as possible;

- 6) Throw without taking aim; loosening all the fingers of the throwing hand almost simultaneously, but the little finger first; keep the feet firmly on the ground; at the throw let the left arm swing backwards up and down;



Fig. 269.

- 7) The same movements, bending the right knee at the jerk; stretching the right knee and bending the left knee at the fling and throw;
 8) The same with a step to the right at the throw.

In all these exercises the face must be turned towards the mark, on which the eyes must be steadily fixed.

II. Horizontal throw.

As each pupil throws with the right hand the class stands behind the thrower to the left; the thrower being at least 26 ft. from the mark. The weapon is then thrown with force in as slight a curve as possible at the target.

- 1) with feet firm (standing throw);
- 2) bending forwards;
- 3) step to the right;
- 4) step to the left at the jerk, step to the right at the throw;
- 5) walking forwards; the target to be approached obliquely from the right, the lance carried at the poise;
- 6) the same running forwards; this is best done at the double (running throw), also in running past (throw in passing);
- 7) the same, with a leap towards the target at the moment of throwing (leaping throw);
- 8) stepping back to the right, or springing back at the jerk and stepping to the right or springing forwards at the throw.

III. Curved throw.

- 1) Position as for horizontal throw: but the right hand must so grasp the weapon that the greater weight is to the front; when the fingers loosen their grasp the point of the lance sinks slowly forwards;

- 2) Jerk: the right arm is stretched with an outwards movement obliquely downwards and backwards, so that the hand holds the lance with an oblique reversed grasp; the point is then on a level with the eyes, the chest squared to the lance (**Fig. 270**);



Fig. 270.

- 3) Throw: the hand moves in the direction in which the lance points;
4) to 9) the same as 1) to 6) in I.

All kinds of curved throw are to be practised with regard to a height (as for instance over a scaffolding) and with regard to height and length, both with and without a mark.

- 10) The following is another position for the throw: at the jerk the right arm is only half stretched out, without turning at all, the right knee is considerably bent and the trunk thrown far back; at the throw stretch the knees and bend the trunk forwards;
- 11) Throw as in 10) first stepping or running with a leap into the position for throwing as described above.

IV. Downward throw.

- 1) Straight throw as in II;
- 2) Curved throw as in III.

Lance throwing is performed in two ways for competitions:

a. Throw for hits. The class throws in turn from the same place, and the winner is he who first accomplishes a given number of hits (generally 6);

b. Throw from fixed places. The class throws in turn, standing at several (3) marked places (at intervals of 1 yard behind one another). He is the winner who, advancing each time after a successful throw to the next place nearer to the target, is the first to make a hit from the front place.

It is a hit when the weapon's point
in the straight throw touches,
in the curved throw touches,
in the downward throw touches the mark,
the post or the target.

In throwing at the post, if the stem only is hit instead of the head, a half-hit is counted; for if the post with a head and stem represents a man, the body also can be wounded; in throwing at a target the distance of the point hit from a certain fixed point measures the value of the throw.

It is a miss if the lance flutters and wavers, instead of flying horizontally or in a curve, as the case may be. This occurs when the fingers do not all loosen their grip at the same moment, or do it too late; when it drags and tilts and touches the ground with the handle end or falls short, it shows that the hand has described at the fling a downwards or upwards curve; when it goes to one side the hand must have made a curve sideways and the aim was bad, the eyes having wandered.

V. Variations of the throw.

- 1) Swinging throw (with a lift); lower the arm, holding the lance on the level of the hips; bring it with a swing of the arm from the backward position into the forward position and throw off;
- 2) Throw to the left side under the left arm (the shield bearer), arched and raised;
- 3) Throw to the right, the lance gliding over the left forearm, which is bent, held up in front and protected by a guard;
- 4) Throw the lance with a noose (strap) twisted round the handle behind the centre

of gravity; one finger, or more, holds the strap, while the others grasp the handle at the centre of gravity; all the fingers let go almost at the same moment; the spiral twisting of the flying missile is by this means increased and the straight direction of its flight, as in the case of a ball in the spiral barrel of a gun, is assured (**Fig. 271**);

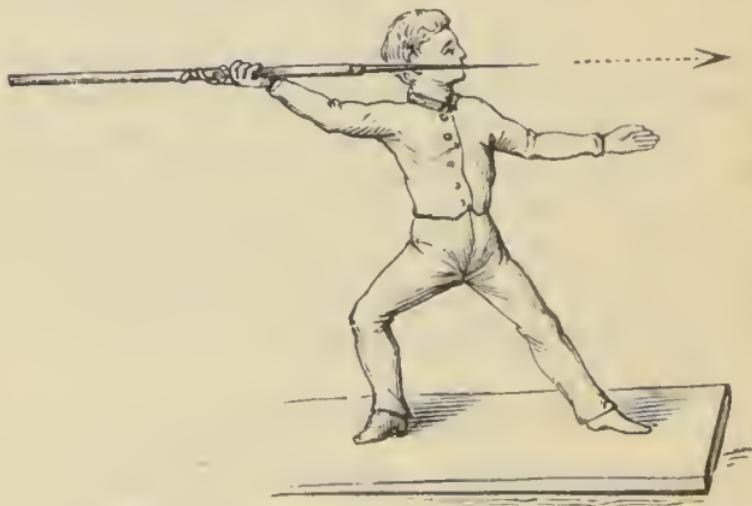


Fig. 271.

- 5) Throw with the shaft of the lance laid on the right shoulder, the point to the back; both hands, or sometime only one, grasp the lower end of the shaft; it describes with the point as it turns over a semi-circle in a vertical plain (= beam or pole throwing) (**Fig. 272**);
- 6) Throw simultaneously with two lances, one in each hand;

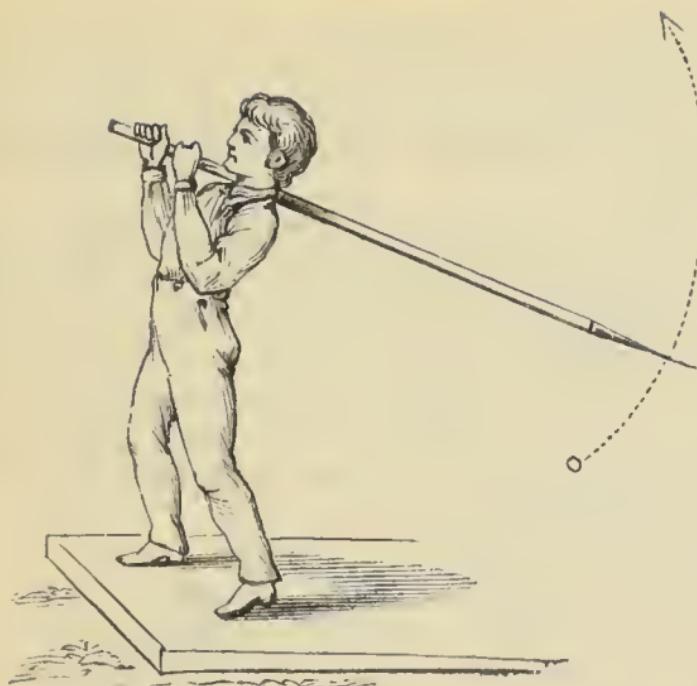


Fig. 272.

- 7) Simultaneous throw by several pupils, placed before the target in a semi-circle;
- 8) Throw with light, short, feathered arrows (darts);
- 9) Throw with short, thick staves of wood or iron.

B. HURLING.

Apparatus: Heavy objects (stones, iron balls), which are held like the balls in the game of bowls.

Position for hurling: In hurling to the right, the right foot (foot of the throwing arm) is behind and turned out; the left foot (foot of the resting arm) straight out in front. The

right arm (throwing arm) hung down close to and touching the right hip, the wrist sharply bent inwards; the left arm (arm at rest) is placed on the left hip or stretched horizontally forwards.

Manner of hurling: The right hand grasps the weight (the ball), the arms swing backwards and forwards once or twice, and at the same time the legs may bend, but the trunk must remain upright and motionless; then the throw off is made, the hand and fingers quitting the ball at the same moment (**Fig. 273**). Except on the occasion of hurling competitions, carried out with regard to height and distance. throw always first once to the right, then once to the left. The hurler steps into the middle of the space, the remainder of the class standing on the side furthest from his throwing arm, that they may not be hit by a faulty throw.

Hurling can be done either standing or at a run



Fig. 273.

- 1) forwards;
- 2) sideways;
- 3) backwards with the arm turned inwards; also
- 4) forwards with weights (balls) up to 44 lbs. held in both hands;
- 5) the same, backwards, over the head;
- 6) the same, backwards, between the legs;
- 7) with a weight of 44 lbs. a distance of 20 ft. while standing on one leg, holding the other in the air.

Every movement is to be performed for height, for length, and for height and length, as well as at a mark (a fixed ball, or post).

- 8) Alternate hurling and catching of a weight by several pupils, placed together in order (in a circle or row).

One kind of hurling is the throwing of a lenticular quoit of wood or stone, or a metal plate (disk), weighing from $4\frac{1}{2}$ to 9 lbs., which must turn in the air when it is thrown. This is best as a long throw ($4\frac{1}{2}$ lbs. to a distance of 82 ft.).

The following exercises should be practised:

- 1) Underhand throw with the thumb upwards and inwards; the disk circles forwards like the wheel of an advancing carriage;
- 2) Underhand throw with the thumb downwards and the back of the hand to the front, the "twisted grasp"; the disk circles backwards like the wheel of a carriage which is being backed. In both cases the throwing arm turned inwards swings from the uplifted position, in which the disk

rests on the lower arm, downwards and forwards (**Fig. 274**);



Fig. 274.

- 3) Throw horizontally; the bent arm throws the quoit from before the chest, with a movement of the wrist. When the throw is to the right the quoit circles to the right.

C. PUTTING.

Apparatus: A ball or cube of iron, from 11 lbs. to 41 lbs. and 55 lbs. in weight, preferably a stone of the same weight. But beginners must not be particular as to the shape of their missiles; every stone which is rightly held (and the way to do this is soon learnt by practice) can be well thrown. So, "keep to what Nature provides; she, not Art, is everywhere".

Position for, and manner of, putting: The attitude of the body is the same as for hurling.

The weight, laid on the ground before the feet, is, with the help of the left hand, lifted on to the open right hand which is to put the weight; during the stretching of the knee the weight is lifted up to and over the right shoulder, the arm being sharply bent at the elbow, and held there freely or close to the neck behind the ear (Fig. 275). The body bends

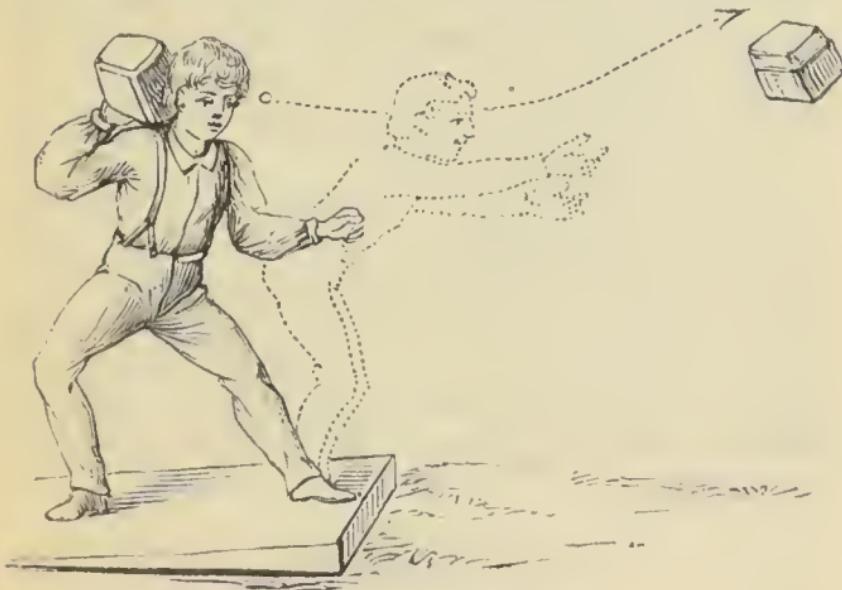


Fig. 275.

back and forwards, the trunk turning several times to right and left; at last the throw is made with an energetic movement forwards and thrust of the right arm. The power of the throw depends more on the momentum of the body than on the forcible thrust of the arm.

Alteration of the position of the feet, bending forwards and backwards, lunging with the

left leg in front of the right leg (in this case motionless), walking or running forwards, a leap into position, or a leap forwards are admissible, provided the thrower be not carried beyond the line traced beforehand as a limit.

Measurement of the throw: the throw is usually in length, and the spot at which the weight first touches the ground counts as the end of the throw, not the spot to which the weight may afterwards roll. 37 lbs. may be thrown with either hand to a distance of from 13 ft. to 26 feet; the two hands together can never throw quite so far.

It may be seen if anyone has practised putting the weight by noticing if he gets pretty well the same result in repeated throws. But if a man throw the weight the first time only 10 ft. and the second 15 ft. he is not skilled and may improve very much by practice, whereas the progress of an expert is hardly perceptible.

D. CASTING.

The throwing of light weights by a swing of the arms or with special appliances may be done:

- 1) With the hands alone, ordinary throwing, be it horizontal or curved throw. The commonest ways of throwing are:
 - a. the throwing arm turned outwards reaches far backwards; the swing is straight forwards,

- b. the throwing arm reaches far back, the wrist is at first turned to the back; the swing is in a semi circle forwards and upwards,
- c. the throwing arm reaches back on a level with the shoulder; the swing of the slightly bent arm is in a semi circle, downwards and forwards,
- d. the throwing arm stretches before the face, the back of the hand above, over the opposite shoulder; the swing follows with or without turning the arm, standing still, at a run, running in various directions, forwards, sideways (also under one leg), backwards over the head and between the legs as far as possible (2 lbs. to 180 ft.), vertically upwards (1 lb. to 65 ft.).

In throwing with the right arm point the left foot straight to the front, the right foot being turned out at a pace behind. A forwards swing of the arm, a turning of the trunk at the throw, a run of a few steps wonderfully increase the force of the throw. The throw should be at a mark, such as a padded target, into a net, at a breakable pot, a bell etc. Under certain conditions fellow-pupils who strive to elude the blows may be pelted. Throw with one hand or with both at the same time, with bullets, or best of all, heavy wooden balls, with stones, flat rather than round, which rebound many times from the surface of the water (ducks and drakes), with

angular stones which hop along the ground, with balls of wood, metal, leather, india rubber, wool, snow, with short staves which stick into the ground. with hoops, with a hammer ($4\frac{1}{2}$ lbs. 67 ft.), with a club, an axe, a knife etc.

- 2) With special appliances, such as: slings (noose and ball), leash, line (bolero), rope sling (lasso), harpoon, any implement with which a weight is launched (bat, racket, La Grace sticks, battledore, cup of cup and ball), casting-plank, curved stick (boomerang) and others.

The gymnasium is seldom large enough for casting; a suitable place for the exercise is the play ground, to which especially belongs the catching of the objects thrown; casting may also be practised on a gymnastic expedition.

CONCLUDING REMARKS.

In describing the different kinds of gymnastics such arrangements of exercises, with the appropriate appliances, have been already set forth as will readily lend themselves to competitions. We need only say further that for the same purpose a sequence of exercises with different appliances, passing without pause from one appliance to the next, may be successfully employed; as for example:

- 1) storm jumping,
- 2) buck jumping,

- 3) a turn on the stirrups round one's horizontal axis; i. e. head over heels,
- 4) a circle and underswing on the horizontal bar,
- 5) swinging and turning on the parallel bars,
- 6) ascending and descending a pole (or rope),
- 7) a race, ending at the starting point. Count the seconds from the beginning to the completion of the exercise.

Finally entirely different exercises can be used for competitions, as for example, when it is proposed to decide whether one pupil can remain in the rest on the parallel bars as long a time as another can hang on the horizontal bar.

